



Rules Governing Public Drinking Water Systems

PART 3 - FINANCIAL ASSISTANCE AND CAPACITY DEVELOPMENT

This Compilation Published by the Utah Division of Drinking Water on 2-12-03

- **DISCLAIMER:** The rules provided herein are **not** the legal versions of the rules. The legal versions of the rules are kept in an internal database administered by the Utah Division of Administrative Rules (DAR). To obtain a legal version, contact DAR at (800) 538-1773 or www.rules.utah.gov. Alternately, a legal version is available in hard (paper) copy from LexisNexis at (800) 833-9844 or www.lexisnexis.com. In this document, we attempt to provide accurate and timely information, but this cannot be guaranteed.

- Visit the Division of Drinking Water's web site, drinkingwater.utah.gov, for current information on all Drinking Water Board rules. The web site has electronic copies of the rules which may be viewed, downloaded or searched.

This Page Intentionally Left Blank

General Table of Contents
(A Detailed Table of Contents Begins on Page 5)

R309-110 DEFINITIONS (EFFECTIVE DECEMBER 9, 2002).....	9
R309-700 STATE DRINKING WATER PROJECT REVOLVING LOAN PROGRAM (EFFECTIVE NOVEMBER 15, 2002)	41
R309-705 FEDERAL DRINKING WATER PROJECT REVOLVING LOAN PROGRAM (EFFECTIVE NOVEMBER 15, 2002)	61
R309-352. CAPACITY DEVELOPMENT PROGRAM (EFFECTIVE SEPTEMBER 15, 1999)	85

This Page Intentionally Left Blank

Detailed Table of Contents

R309-110 DEFINITIONS (EFFECTIVE DECEMBER 9, 2002)	9
R309-110-1. Purpose.	11
R309-110-2. Authority.	11
R309-110-3. Acronyms.	11
R309-110-4. Definitions.	14
R309-700 STATE DRINKING WATER PROJECT REVOLVING LOAN PROGRAM (EFFECTIVE NOVEMBER 15, 2002)	41
R309-700-1. Purpose.	43
R309-700-2. Statutory Authority.	43
R309-700-3. Definitions and Eligibility.	43
R309-700-4. Application and Project Initiation Procedures.	44
R309-700-5. Loan, Credit Enhancement, Interest Buy-Down, and Hardship Grant Consideration Policy.	47
R309-700-6. Planning Advance.	53
R309-700-7. Design Advance.	53
R309-700-8. Technical Assistance.	54
R309-700-9. Credit Enhancement Agreements.	54
R309-700-10. Interest Buy-Down Agreements.	55
R309-700-11. Loans.	55
R309-700-12. Project Authorization (Reference R309-700-4(4)).	55
R309-700-13. Financial Evaluations.	56
R309-700-14. Committal of Funds and Approval of Agreements.	59
R309-700-15. Construction.	59

**R309-705 FEDERAL DRINKING WATER PROJECT REVOLVING LOAN PROGRAM
(EFFECTIVE NOVEMBER 15, 2002)61**

R309-705-1. Purpose. 63

R309-705-2. Statutory Authority. 63

R309-705-3. Definitions. 63

R309-705-4. Financial Assistance Methods. 65

(1) Eligible Activities of the SRF. 65

(2) Types of Financial Assistance Available for Eligible Water Systems..... 65

(a) Loans..... 65

(b) Refinancing Existing Debt Obligations..... 67

(c) Credit Enhancement Agreements and Interest Buy-Down Agreements..... 67

(d) Technical Assistance..... 68

R309-705-5. Application and Project Initiation Procedures. 69

R309-705-6. Applicant Priority System and Selection of Terms of Assistance. 72

R309-705-7. Project Authorization..... 75

R309-705-8. Financial Evaluations. 76

R309-705-9. Emergency Assistance..... 78

(1) Authority..... 78

(2) Eligibility 79

(3) Requirements for the Applicant..... 79

(4) Financial Agreements, Bonding, etc..... 80

(5) Funding Alternatives 80

(6) Funding Process..... 80

R309-705-10. Committal of Funds and Approval of Agreements. 81

R309-705-11. Construction..... 81

R309-705-12. Compliance with Federal Requirements. 81

**R309-352. CAPACITY DEVELOPMENT PROGRAM (EFFECTIVE SEPTEMBER 15,
1999)85**

R309-352-1. Authority. 87

R309-352-2. Purpose. 87

R309-352-3. Definitions. 87

R309-352-4. General..... 88

R309-352-5. Requirements for New Community and New Non-transient, Non-community Water Systems.	90
R309-352-6. Minimum Capacity Required for Financial Assistance Under Provisions of R309- 351.	91

This Page Intentionally Left Blank

R309-110 Definitions (Effective December 9, 2002)

Table of Contents

R309-110-1. Purpose.....	11
R309-110-2. Authority.	11
R309-110-3. Acronyms.	11
R309-110-4. Definitions.	14

This Page Intentionally Left Blank

R309-110. Administration: Definitions.

R309-110-1. Purpose.

The purpose of this rule is to define certain terms and expressions that are utilized throughout all rules under R309. Collectively, those rules govern the administration, monitoring, operation and maintenance of public drinking water systems as well as the design and construction of facilities within said systems.

R309-110-2. Authority.

This rule is promulgated by the Drinking Water Board as authorized by Title 19, Environmental Quality Code, Chapter 4, Safe Drinking Water Act, Subsection 104 of the Utah Code and in accordance with 63-46a of the same, known as the Administrative Rulemaking Act.

R309-110-3. Acronyms.

As used in R309:

"AF" means Acre Foot.

"AWOP" means Area Wide Optimization Program.

"AWWA" means American Water Works Association.

"BAT" means Best Available Technology.

"C" means Residual Disinfectant Concentration.

"CCP" means Composite Correction Program.

"CCR" means Consumer Confidence Report.

"CEU" means Continuing Education Unit.

"CFE" means Combined Filter Effluent.

"cfs" means Cubic Feet Per Second.

"CPE" means Comprehensive Performance Evaluation.

"CT" means Residual Concentration multiplied by Contact Time.

"CTA" means Comprehensive Technical Assistance.

"CWS" means Community Water System.

"DBPs" means Disinfection Byproducts.

"DE" means Diatomaceous Earth.

"DWSP" means Drinking Water Source Protection.

"EP" means Entry Point.

"ERC" means Equivalent Residential Connection.

"FBRR" means Filter Backwash Recycling Rule.

"fps" means Feet Per Second

"gpd" means Gallons Per Day.

"gpm" means Gallons Per Minute.

"gpm/sf" means Gallons Per Minute Per Square Foot.

"GWR" means Ground Water Rule.

"GWUDI" means Ground Water Under Direct Influence of Surface Water.

"HAA5s" means Haloacetic Acids (Five).

"HPC" means Heterotrophic Plate Count.

"ICR" means Information Collection Rule of 40 CRF 141 subpart M.

"IESWTR" means Interim Enhanced Surface Water Treatment Rule.

"IFE" means Individual Filter Effluent.

"LT1ESWTR" means Long Term 1 Enhanced Surface Water Treatment Rule.

"LT2ESWTR" means Long Term 2 Enhanced Surface Water Treatment Rule.

"MCL" means Maximum Contaminant Level.

"MCLG" means Maximum Contaminant Level Goal.

"MDBP" means Microbial-Disinfection Byproducts.

"MG" means Million Gallons.

"MGD" means Million Gallons Per Day.

"mg/L" means Milligrams Per Liter

"MRDL" means Maximum Residual Disinfectant Level.

"MRDLG" means Maximum Residual Disinfectant Level Goal.

"NCWS" means Non-Community Water System.

"NTNC" means Non-Transient Non-Community.

"NTU" means Nephelometric Turbidity Unit.

"PN" means Public Notification.

"PWS" means Public Water System.

"SDWA" means Safe Drinking Water Act.

"Stage 1 DBPR" means Stage 1 Disinfectants and Disinfection Byproducts Rule.

"Stage 2 DBPR" means Stage 2 Disinfectants and Disinfection Byproducts Rule.

"Subpart H" means A PWS using SW or GWUDI.

"Subpart P" means A PWS using SW or GWUDI and serving at least 10,000 people.

"Subpart S" means Provisions of 40 CRF 141 subpart S commonly referred to as the Information Collection Rule.

"Subpart T" means A PWS using SW or GWUDI and serving less than 10,000 people.

"SUVA" means Specific Ultraviolet Absorption.

"SW" means Surface Water.

"SWAP" means Source Water Assessment Program.

"SWTR" means Surface Water Treatment Rule.

"T" means Contact Time.

"TA" means Technical Assistance.

"TCR" means Total Coliform Rule.

"TNCWS" means Transient Non-Community Water System.

"TNTC" means Too Numerous To Count.

"TOC" means Total Organic Carbon.

"TT" means Treatment Technique.

"TTHM" means Total Trihalomethanes.

"WCP" means Watershed Control Program.

"WHP" means Wellhead Protection.

R309-110-4. Definitions.

As used in R309:

"Action Level" means the concentration of lead or copper in drinking water tap samples (0.015 mg/l for lead and 1.3 mg/l for copper) which determines, in some cases, the corrosion treatment, public education and lead line replacement requirements that a water system is required to complete.

"AF" means acre foot and is the volume of water required to cover an acre to a depth of one foot (one AF is equivalent to 325,851 gallons).

"Air gap" The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, catch basin, plumbing fixture or other device and the flood level rim of the receptacle. This distance shall be two times the diameter of the effective opening for openings greater than one inch in diameter where walls or obstructions are spaced from the nearest inside edge of the pipe opening a distance greater than three times the diameter of the effective openings for a single wall, or a distance greater than four times the diameter of the effective opening for two intersecting walls. This distance shall be three times the diameter of the effective opening where walls or obstructions are closer than the distances indicated above.

"ANSI/NSF" refers to the American National Standards Institute and NSF International. NSF International has prepared at least two health effect standards dealing with treatment chemicals added to drinking water and system components that will come into contact with drinking water, these being Standard 60 and Standard 61. The American National Standards Institute acts as a certifying agency, and determines which laboratories may certify to these standards.

"Approval" unless indicated otherwise, shall be taken to mean a written statement of acceptance from the Executive Secretary.

"Approved" refers to a rating placed on a system by the Division and means that the public water system is operating in substantial compliance with all the Rules of R309.

"Average Yearly Demand" means the amount of water delivered to consumers by a public water system during a typical year, generally expressed in MG or AF.

"AWWA" refers to the American Water Works Association located at 6666 West Quincy Avenue, Denver, Colorado 80235. Reference within these rules is generally to a particular Standard prepared by AWWA and which has completed the ANSI approval process such as ANSI/AWWA Standard C651-92 (AWWA Standard for Disinfecting Water Mains).

"Backflow" means the undesirable reversal of flow of water or mixtures of water and other liquids, gases, or other substances into the distribution pipes of the potable water supply from any source. Also see backsiphonage, backpressure and cross-connection.

"Backpressure" means the phenomena that occurs when the customer's pressure is higher than the supply pressure. This could be caused by an unprotected cross-connection between a drinking water supply and a pressurized irrigation system, a boiler, a pressurized industrial process, elevation differences, air or steam pressure, use of booster pumps or any other source of pressure. Also see backflow, backsiphonage and cross-connection.

"Backsiphonage" means a form of backflow due to a reduction in system pressure which causes a subatmospheric or negative pressure to exist at a site or point in the water system. Also see backflow and cross-connection.

"Best Available Technology" (BAT) means the best technology, treatment techniques, or other means which the Executive Secretary finds, after examination under field conditions and not solely under laboratory conditions, are available (taking cost into consideration). For the purposes of setting MCLs for synthetic organic chemicals, any BAT must be at least as effective as granular activated carbon for all these chemicals except vinyl chloride. Central treatment using packed tower aeration is also identified as BAT for synthetic organic chemicals.

"Board" means the Drinking Water Board.

"Breakpoint Chlorination" means addition of chlorine to water until the chlorine demand has been satisfied. At this point, further addition of chlorine will result in a free residual chlorine that is directly proportional to the amount of chlorine added beyond the breakpoint.

"C" is short for "Residual Disinfectant Concentration."

"Capacity Development" means technical, managerial, and financial capabilities of the water system to plan for, achieve, and maintain compliance with applicable drinking water standards.

"cfs" means cubic feet per second and is one way of expressing flowrate (one cfs is equivalent to 448.8 gpm).

"Class" means the level of certification of Backflow Prevention Technician (Class I, II or III).

"Coagulation" is the process of destabilization of the charge (predominantly negative) on particulates and colloids suspended in water. Destabilization lessens the repelling character of particulates and colloids and allows them to become attached to other particles so that they may be removed in subsequent processes. The particulates in raw waters (which contribute to color and turbidity) are mainly clays, silt, viruses, bacteria, fulvic and humic acids, minerals (including asbestos, silicates, silica, and radioactive particles), and organic particulate.

"Collection area" means the area surrounding a ground-water source which is underlain by collection pipes, tile, tunnels, infiltration boxes, or other ground-water collection devices.

"Commission" means the Operator Certification Commission.

"Community Water System" (CWS) means a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

"Compliance cycle" means the nine-year calendar year cycle during which public water systems must monitor. Each compliance cycle consists of three three-year compliance periods. The first calendar year cycle began January 1, 1993 and ends December 31, 2001; the second begins January 1, 2002 and ends December 31, 2010; the third begins January 1, 2011 and ends December 31, 2019.

"Compliance period" means a three-year calendar year period within a compliance cycle. Each compliance cycle has three three-year compliance periods. Within the first compliance cycle, the first compliance period ran from January 1, 1993 to December 31,

1995; the second from January 1, 1996 to December 31, 1998; and the third is from January 1, 1999 to December 31, 2001.

"Comprehensive Performance Evaluation" (CPE) is a thorough review and analysis of a treatment plant's performance-based capabilities and associated administrative, operation and maintenance practices. It is conducted to identify factors that may be adversely impacting a plant's capability to achieve compliance and emphasizes approaches that can be implemented without significant capital improvements. For purposes of compliance with these rules, the comprehensive performance evaluation must consist of at least the following components: Assessment of plant performance; evaluation of major unit processes; identification and prioritization of performance limiting factors; assessment of the applicability of comprehensive technical assistance; and preparation of a CPE report.

"Confirmed SOC contamination area" means an area surrounding and including a plume of SOC contamination of the soil or water which previous monitoring results have confirmed. The area boundaries may be determined by measuring 3,000 feet horizontally from the outermost edges of the confirmed plume. The area includes deeper aquifers even though only the shallow aquifer is the one contaminated.

"Confluent growth" means a continuous bacterial growth covering the entire filtration area of a membrane filter, or a portion of the filtration area in which discrete bacterial colonies can not be distinguished.

"Contaminant" means any physical, chemical biological, or radiological substance or matter in water.

"Continuing Education Unit" (CEU) means ten contact hours of participation in, and successful completion of, an organized and approved continuing education experience under responsible sponsorship, capable direction, and qualified instruction. College credit in approved courses may be substituted for CEUs on an equivalency basis.

"Conventional Surface Water Treatment" means a series of processes including coagulation, flocculation, sedimentation, filtration and disinfection resulting in substantial particulate removal and inactivation of pathogens.

"Controls" means any codes, ordinances, rules, and regulations that a public water system can cite as currently in effect to regulate potential contamination sources; any physical conditions which may prevent contaminants from migrating off of a site and into surface or ground water; and any site with negligible quantities of contaminants.

"Corrective Action" refers to a rating placed on a system by the Division and means a provisional rating for a public water system not in compliance with the Rules of R309, but making all the necessary changes outlined by the Executive Secretary to bring them into compliance.

"Corrosion inhibitor" means a substance capable of reducing the corrosiveness of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

"Credit Enhancement Agreement" means any agreement entered into between the Board, on behalf of the State, and an eligible water system for the purpose of providing methods and assistance to eligible water systems to improve the security for and marketability of drinking water project obligations.

"Criteria" means the conceptual standards that form the basis for DWSP area delineation to include distance, ground-water time of travel, aquifer boundaries, and ground-water divides.

"Criteria threshold" means a value or set of values selected to represent the limits above or below which a given criterion will cease to provide the desired degree of protection.

"Cross-Connection" means any actual or potential connection between a drinking (potable) water system and any other source or system through which it is possible to introduce into the public drinking water system any used water, industrial fluid, gas or substance other than the intended potable water. For example, if you have a pump moving non-potable water and hook into the drinking water system to supply water for the pump seal, a cross-connection or mixing may lead to contamination of the drinking water. Also see backsiphonage, backpressure and backflow.

"Cross Connection Control Program" means the program administered by the public water system in which cross connections are either eliminated or controlled.

"Cross Connection Control Commission" means the duly constituted advisory subcommittee appointed by the Board to advise the Board on Backflow Technician Certification and the Cross Connection Control Program of Utah.

"CT or CT_{calc}" is the product of "residual disinfectant concentration" (C) in mg/l determined before or at the first customer, and the corresponding "disinfectant contact time" (T) in minutes, i.e., "C" x "T." If a public water system applies disinfectant at more than one point prior to the first customer, the summation of each CT value for each disinfectant sequence before or at the first customer determines the total percent inactivation or "Total Inactivation Ratio." In determining the Total Inactivation Ratio, the public water system must determine the residual disinfectant concentration of each disinfection sequence and corresponding contact time before any subsequent disinfection application point(s).

"CTreq'd" is the CT value required when the log reduction credit given the filter is subtracted from the (3-log) inactivation requirement for *Giardia lamblia* or the (4-log) inactivation requirement for viruses.

"CT99.9" is the CT value required for 99.9 percent (3-log) inactivation of *Giardia lamblia* cysts. CT_{99.9} for a variety of disinfectants and conditions appear in Tables 1.1-1.6, 2.1, and 3.1 of Section 141.74(b)(3) in the code of Federal Regulations (also available from the Division).

"Designated person" means the person appointed by a public water system to ensure that the requirements of their Drinking Water Source Protection Plan(s) for ground water sources and/or surface water sources are met.

"Direct Employment" means that the operator is directly compensated by the drinking water system to operate that drinking water system.

"Direct Filtration" means a series of processes including coagulation and filtration, but excluding sedimentation, resulting in substantial particulate removal.

"Direct Responsible Charge" means active on-site control and management of routine maintenance and operation duties. A person in direct responsible charge is generally an operator of a water treatment plant or distribution system who independently makes decisions during normal operation which can affect the sanitary quality, safety, and adequacy of water delivered to customers. In cases where only one operator is employed by the system, this operator shall be considered to be in direct responsible charge.

"Disadvantaged Communities" are defined as those communities located in an area which has a median adjusted gross income which is less than or equal to 80% of the State's median adjusted gross income, as determined by the Utah State Tax commission from federal individual income tax returns excluding zero exemptions returns.

"Discipline" means type of certification (Distribution or Treatment).

"Disinfectant Contact Time" ("T" in CT calculations) means the time in minutes that it takes water to move from the point of disinfectant application or the previous point of disinfectant residual measurement to a point before or at the point where residual disinfectant concentration ("C") is measured. Where only one "C" is measured, "T" is the time in minutes that it takes water to move from the point of disinfectant application to a point before or at where residual disinfectant concentration ("C") is measured. Where more than one "C" is measured, "T" is (a) for the first measurement of "C," the time in minutes that it takes water to move from the first or only point of disinfectant application to a point before or at the point where the first "C" is measured and (b) for subsequent measurements of "C," the time in minutes that it takes for water to move from the previous "C" measurement point to the "C" measurement point for which the particular "T" is being calculated. Disinfectant contact time in pipelines must be calculated by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe. Disinfectant contact time within mixing basins and storage reservoirs must be determined by tracer studies or an equivalent demonstration.

"Disinfection" means a process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents (see also Primary Disinfection and Secondary Disinfection).

"Disinfection profile" is a summary of daily *Giardia lamblia* inactivation through the treatment plant.

"Distribution System" means the use of any spring or well source, distribution pipelines, appurtenances, and facilities which carry water for potable use to consumers through a public water supply. Systems which chlorinate groundwater are in this discipline.

"Distribution System Manager" means the individual responsible for all operations of a distribution system.

"Division" means the Utah Division of Drinking Water, who acts as staff to the Board and is also part of the Utah Department of Environmental Quality.

"Dose Equivalent" means the product of the absorbed dose from ionizing radiation and such factors as account for differences in biological effectiveness due to the type of radiation and its distribution in the body as specified by the International Commission of Radiological Units and Measurements (ICRU).

"Drinking Water" means water that is fit for human consumption and meets the quality standards of R309-200. Common usage of terms such as culinary water, potable water or finished water are synonymous with drinking water.

"Drinking Water Project" means any work or facility necessary or desirable to provide water for human consumption and other domestic uses which has at least fifteen service connections or serves an average of twenty-five individuals daily for at least sixty days of the year and includes collection, treatment, storage, and distribution facilities under the control of the operator and used primarily with the system and collection, pretreatment or storage facilities used primarily in connection with the system but not under such control.

"Drinking Water Project Obligation" means any bond, note or other obligation issued to finance all or part of the cost of acquiring, constructing, expanding, upgrading or improving a drinking water project.

"Drinking Water Regional Planning" means a county wide water plan, administered locally by a coordinator, who facilitates the input of representatives of each public water system in the county with a selected consultant, to determine how each public water system will either collectively or individually comply with source protection, operator certification, monitoring (including consumer confidence reports), capacity development (including technical, financial and managerial aspects), environmental issues, available funding and related studies.

"DWSP Program" means the program to protect drinking water source protection zones and management areas from contaminants that may have an adverse effect on the health of persons.

"DWSP Zone" means the surface and subsurface area surrounding a ground-water or surface water source of drinking water supplying a PWS, over which or through which contaminants are reasonably likely to move toward and reach such water source.

"Emergency Storage" means that storage tank volume which provides water during emergency situations, such as pipeline failures, major trunk main failures, equipment failures, electrical power outages, water treatment facility failures, source water supply contamination, or natural disasters.

"Engineer" means a person licensed under the Professional Engineers and Land Surveyors Licensing Act, 58-22 of the Utah Code, as a "professional engineer" as defined therein.

"Enhanced coagulation" means the addition of sufficient coagulant for improved removal of disinfection byproduct precursors by conventional filtration treatment.

"Enhanced softening" means the improved removal of disinfection byproduct precursors by precipitative softening.

"Equalization Storage" means that storage tank volume which stores water during periods of low demand and releases the water under periods of high demand. Equalization storage provides a buffer between the sources and distribution for the varying daily water demands. Typically, water demands are high in the early morning or evening and relatively low in the middle of the night. A rule-of-thumb for equalization storage volume is that it should be equal to one average day's use.

"Equivalent Residential Connection" (ERC) is a term used to evaluate service connections to consumers other than the typical residential domicile. Public water system management is expected to review annual metered drinking water volumes delivered to non-residential connections and estimate the equivalent number of residential connections that these represent based upon the average of annual metered drinking water volumes delivered to true single family residential connections. This information is utilized in evaluation of the system's source and storage capacities (refer to R309-510).

"Executive Secretary" means the Executive Secretary of the Board as appointed and with authority outlined in 19-4-106 of the Utah Code.

"Existing ground-water source of drinking water" means a public supply ground-water source for which plans and specifications were submitted to the Division on or before July 26, 1993.

"Existing surface water source of drinking water" means a public supply surface water source for which plans and specifications were submitted to the Division on or before June 12, 2000.

"Filtration" means a process for removing particulate matter from water by passage through porous media.

"Filter profile" is a graphical representation of individual filter performance, based on continuous turbidity measurements or total particle counts versus time for an entire filter run, from startup to backwash inclusively, that includes an assessment of filter performance while another filter is being backwashed.

"Financial Assistance" means a drinking water project loan, credit enhancement agreement, interest buy-down agreement or hardship grant.

"Fire Suppression Storage" means that storage tank volume allocated to fire suppression activities. It is generally determined by the requirements of the local fire marshal, expressed in gallons, and determined by the product of a minimum flowrate in gpm and required time expressed in minutes.

"First draw sample" means a one-liter sample of tap water, collected in accordance with an approved lead and copper sampling site plan, that has been standing in plumbing pipes at least 6 hours and is collected without flushing the tap.

"Flash Mix" is the physical process of blending or dispersing a chemical additive into an unblended stream. Flash Mixing is used where an additive needs to be dispersed rapidly (within a period of one to ten seconds). Common usage of terms such as "rapid mix" or "initial mix" are synonymous with flash mix.

"Floc" means flocculated particles or agglomerated particles formed during the flocculation process. Flocculation enhances the agglomeration of destabilized particles and colloids toward settleable (or filterable) particles (flocs). Flocculated particles may be small (less than 0.1 mm diameter) micro flocs or large, visible flocs (0.1 to 3.0 mm diameter).

"Flocculation" means a process to enhance agglomeration of destabilized particles and colloids toward settleable (or filterable) particles (flocs). Flocculation begins immediately after destabilization in the zone of decaying mixing energy (downstream from the mixer) or as a result of the turbulence of transporting flow. Such incidental flocculation may be an adequate flocculation process in some instances. Normally flocculation involves an intentional and defined process of gentle stirring to enhance contact of destabilized particles and to build floc particles of optimum size, density, and strength to be subsequently removed by settling or filtration.

"fps" means feet per second and is one way of expressing the velocity of water.

"G" is used to express the energy required for mixing and for flocculation. It is a term which is used to compare velocity gradients or the relative number of contacts per unit volume per second made by suspended particles during the flocculation process. Velocity gradients G may be calculated from the following equation: $G = \text{square root of the value}(550 \text{ times } P \text{ divided by } u \text{ times } V)$. Where: P = applied horsepower, u = viscosity, and V = effective volume.

"GAC10" means granular activated carbon filter beds with an empty-bed contact time of 10 minutes based on average daily flow and a carbon reactivation frequency of every 180 days.

"Geometric Mean" the geometric mean of a set of N numbers $X_1, X_2, X_3, \dots, X_N$ is the N th root of the product of the numbers.

"gpd" means gallons per day and is one way of expressing average daily water demands experienced by public water systems.

"gpm" means gallons per minute and is one way of expressing flowrate.

"gpm/sf" means gallons per minute per square foot and is one way of expressing flowrate through a surface area.

"Grade" means any one of four possible steps within a certification discipline of either water distribution or water treatment. Grade I indicates knowledge and experience requirements for the smallest type of public water supply. Grade IV indicates knowledge and experience levels appropriate for the largest, most complex type of public water supply.

"Gross Alpha Particle Activity" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample.

"Gross Beta Particle Activity" means the total radioactivity due to beta particle emission as inferred from measurements on a dry sample.

"ground water of high quality" means a well or spring producing water deemed by the Executive Secretary to be of sufficiently high quality that no treatment is required. Such sources shall have been designed and constructed in conformance with these rules, have been tested to establish that all applicable drinking water quality standards (as given in rule R309-200) are reliably and consistently met, have been deemed not vulnerable to natural or man-caused contamination, and the public water system management have established adequate protection zones and management policies in accordance with rule R309-600.

"ground water of low quality" means a well or spring which, as determined by the Executive Secretary, cannot reliably and consistently meet the drinking water quality standards described in R309-200. Such sources shall be deemed to be a low quality

ground water source if any of the conditions outlined in subsection R309-505-8(1) exist. Ground water that is classified "UDI" is a subset of this definition and requires "conventional surface water treatment" or an acceptable alternative.

"Ground Water Source" means any well, spring, tunnel, adit, or other underground opening from or through which ground water flows or is pumped from sub surface water-bearing formations.

"Ground Water Under the Direct Influence of Surface Water" or "UDI" means any water beneath the surface of the ground with significant occurrence of insects or other macro organisms, algae, or large-diameter pathogens such as Giardia lamblia, or (for surface water treatment systems serving at least 10,000 people only) Cryptosporidium, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions. Direct influence will be determined for individual sources in accordance with criteria established by the Executive Secretary. The determination of direct influence may be based on site-specific measurements of water quality and/or documentation of well or spring construction and geology with field evaluation.

"Haloacetic acids (five)" (HAA5) mean the sum of the concentrations in mg/L of the haloacetic acid compounds (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid), rounded to two significant figures after addition.

"Hardship Grant" means a grant of monies to a political subdivision that meets the drinking water project loan considerations whose project is determined by the Board to not be economically feasible unless grant assistance is provided. A hardship grant may be authorized in the following forms:

- (1) a Planning Advance which will be required to be repaid at a later date, to help meet project costs incident to planning to determine the economic, engineering and financial feasibility of a proposed project;
- (2) a Design Advance which will be required to be repaid at a later date, to help meet project costs incident to design including, but not limited to, surveys, preparation of plans, working drawings, specifications, investigations and studies; or
- (3) a Project Grant which will not be required to be repaid.

"Hardship Grant Assessment" means an assessment applied to loan recipients. The assessment shall be calculated as a percentage of principal. Hardship grant assessment funds shall be subject to the requirements of UAC R309-700 for hardship grants.

"Hotel, Motel or Resort" shall include tourist courts, motor hotels, resort camps, hostels, lodges, dormitories and similar facilities, and shall mean every building, or

structure with all buildings and facilities in connection, kept, used, maintained as, advertised as, or held out to the public to be, a place where living accommodations are furnished to transient guests or to groups normally occupying such facilities on a seasonal or short term basis.

"Hydrogeologic methods" means the techniques used to translate selected criteria and criteria thresholds into mappable delineation boundaries. These methods include, but are not limited to, arbitrary fixed radii, analytical calculations and models, hydrogeologic mapping, and numerical flow models.

"Initial compliance period" means the first full three-year compliance period which begins at least 18 months after promulgation, except for contaminants listed in R309-200-5(3)(a), Table 200-2 numbers 19 to 33; R309-200-5(3)(b), Table 200-3 numbers 19 to 21; and R309-200-5(1)(c), Table 200-1 numbers 1, 5, 8, 11 and 18, initial compliance period means the first full three-year compliance after promulgation for systems with 150 or more service connections (January 1993-December 1995), and first full three-year compliance period after the effective date of the regulation (January 1996-December 1998) for systems having fewer than 150 service connections.

"Intake", for the purposes of surface water drinking water source protection, means the device used to divert surface water and also the conveyance to the point immediately preceding treatment, or, if no treatment is provided, at the entry point to the distribution system.

"Interest Buy-Down Agreement" means any agreement entered into between the Board, on behalf of the State, and a political subdivision, for the purpose of reducing the cost of financing incurred by a political subdivision on bonds issued by the subdivision for drinking water project costs.

"Labor Camp" shall mean one or more buildings, structures, or grounds set aside for use as living quarters for groups of migrant laborers or temporary housing facilities intended to accommodate construction, industrial, mining or demolition workers.

"Land management strategies" means zoning and non-zoning controls which include, but are not limited to, the following: zoning and subdivision ordinances, site plan reviews, design and operating standards, source prohibitions, purchase of property and development rights, public education programs, ground water monitoring, household hazardous waste collection programs, water conservation programs, memoranda of understanding, written contracts and agreements, and so forth.

"Land use agreement" means a written agreement, memoranda or contract wherein the owner(s) agrees not to locate or allow the location of uncontrolled potential contamination sources or pollution sources within zone one of new wells in protected aquifers or zone one of surface water sources. The owner(s) must also agree not to locate or allow the location of pollution sources within zone two of new wells in unprotected aquifers and new springs unless the pollution source agrees to install design standards

which prevent contaminated discharges to ground water. This restriction must be binding on all heirs, successors, and assigns. Land use agreements must be recorded with the property description in the local county recorder's office. Refer to R309-600-13(2)(d).

Land use agreements for protection areas on publicly owned lands need not be recorded in the local county recorder office. However, a letter must be obtained from the Administrator of the land in question and meet the requirements described above.

"Large water system" for the purposes of R309-210-6 only, means a water system that serves more than 50,000 persons.

"Lead free" means, for the purposes of R309-210-6, when used with respect to solders and flux refers to solders and flux containing not more than 0.2 percent lead; when used with respect to pipes and pipe fittings refers to pipes and pipe fittings containing not more than 8.0 percent lead; and when used with respect to plumbing fittings and fixtures intended by the manufacturer to dispense water for human ingestion refers to fittings and fixtures that are in compliance with standards established in accordance with 42 U.S.C. 300 g-6(e).

"Lead service line" means a service line made of lead which connects the water main to the building inlet and any lead pigtail, gooseneck or other fitting which is connected to such lead line.

"Legionella" means a genus of bacteria, some species of which have caused a type of pneumonia called Legionnaires Disease.

"Major Bacteriological Routine Monitoring Violation" means that no routine bacteriological sample was taken as required by R309-210-5(1).

"Major Bacteriological Repeat Monitoring Violation" - means that no repeat bacteriological sample was taken as required by R309-210-5(2).

"Major Chemical Monitoring Violation" - means that no initial background chemical sample was taken as required in R309-204-4(5).

"Management area" means the area outside of zone one and within a two-mile radius where the Optional Two-mile Radius Delineation Procedure has been used to identify a protection area.

For wells, land may be excluded from the DWSP management area at locations where it is more than 100 feet lower in elevation than the total drilled depth of the well.

For springs and tunnels, the DWSP management area is all land at elevation equal to or higher than, and within a two-mile radius, of the spring or tunnel collection area. The DWSP management area also includes all land lower in elevation than, and within 100 horizontal feet, of the spring or tunnel collection area. The elevation datum to be used is

the point of water collection. Land may also be excluded from the DWSP management area at locations where it is separated from the ground water source by a surface drainage which is lower in elevation than the spring or tunnel collection area.

"Man-Made Beta Particle and Photon Emitters" means all radionuclides emitting beta particles and/or photons listed in Maximum Permissible Body Burdens and maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure, "NBS Handbook 69," except the daughter products of thorium-232, uranium-235 and uranium-238.

"Maximum Contaminant Level" (MCL) means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system.

"Maximum residual disinfectant level" (MRDL) means a level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. For chlorine and chloramines, a PWS is in compliance with the MRDL when the running annual average of monthly averages of samples taken in the distribution system, computed quarterly, is less than or equal to the MRDL. For chlorine dioxide, a PWS is in compliance with the MRDL when daily samples are taken at the entrance to the distribution system and no two consecutive daily samples exceed the MRDL. MRDLs are enforceable in the same manner as MCLs pursuant to UT Code S 19-4-104 . There is convincing evidence that addition of a disinfectant is necessary for control of waterborne microbial contaminants. Notwithstanding the MRDLs listed in R309-200-5(3), operators may increase residual disinfectant levels of chlorine or chloramines (but not chlorine dioxide) in the distribution system to a level and for a time necessary to protect public health to address specific microbiological contamination problems caused by circumstances such as distribution line breaks, storm runoff events, source water contamination, or cross-connections.

"Maximum residual disinfectant level goal" (MRDLG) means the maximum level of a disinfectant added for water treatment at which no known or anticipated adverse effect on the health of persons would occur, and which allows an adequate margin of safety. MRDLGs are non-enforceable health goals and do not reflect the benefit of the addition of the chemical for control of waterborne microbial contaminants.

"Medium-size water system" for the purposes of R309-210-6 only, means a water system that serves greater than 3,300 and less than or equal to 50,000 persons.

"Metropolitan area sources" means all sources within a metropolitan area. A metropolitan area is further defined to contain at least 3,300 year round residents. A small water system which has sources within a metropolitan system's service area, may have those sources classified as a metropolitan area source.

"MG" means million gallons and is one way of expressing a volume of water.

"MGD" means million gallons per day and is one way of expressing average daily water demands experienced by public water systems or the capacity of a water treatment plant.

"mg/L" means milligrams per liter and is one way of expressing the concentration of a chemical in water. At small concentrations, mg/L is synonymous with "ppm" (parts per million).

"Minor Bacteriological Routine Monitoring Violation" means that not all of the routine bacteriological samples were taken as required by R309-210-5(1).

"Minor Bacteriological Repeat Monitoring Violation" means that not all of the repeat bacteriological samples were taken as required by R309-210-5(2).

"Minor Chemical Monitoring Violation" means that the required chemical sample(s) was not taken in accordance with R309-205 and R309-210.

"Modern Recreation Camp" means a campground accessible by any type of vehicular traffic. The camp is used wholly or in part for recreation, training or instruction, social, religious, or physical education activities or whose primary purpose is to provide an outdoor group living experience. The site is equipped with permanent buildings for the purpose of sleeping, a drinking water supply under pressure, food service facilities, and may be operated on a seasonal or short term basis. These types of camps shall include but are not limited to privately owned campgrounds such as youth camps, church camps, boy or girl scout camps, mixed age groups, family group camps, etc.

"Near the first service connection" means one of the service connections within the first 20 percent of all service connections that are nearest to the treatment facilities.

"Negative Interest" means a loan having loan terms with an interest rate at less than zero percent. The repayment schedule for loans having a negative interest rate will be prepared by the Board.

"New ground water source of drinking water" means a public supply ground water source of drinking water for which plans and specifications are submitted to the Division after July 26, 1993.

"New surface water source of drinking water" means a public supply surface water source of drinking water for which plans and specifications are submitted to the Division after June 12, 2000.

"New Water System" means a system that will become a community water system or non-transient, non-community water system on or after October 1, 1999.

"Non-Community Water System" (NCWS) means a public water system that is not a community water system. There are two types of NCWS's: transient and non-transient.

"Non-distribution system plumbing problem" means a coliform contamination problem in a public water system with more than one service connection that is limited to the specific service connection from which a coliform-positive sample was taken.

"Nonpoint source" means any diffuse source of contaminants or pollutants not otherwise defined as a point source.

"Non-Transient Non-Community Water System" (NTNCWS) means a public water system that regularly serves at least 25 of the same nonresident persons per day for more than six months per year. Examples of such systems are those serving the same individuals (industrial workers, school children, church members) by means of a separate system.

"Not Approved" refers to a rating placed on a system by the Division and means the water system does not fully comply with all the Rules of R309 as measured by R309-400.

"NTU" means Nephelometric Turbidity Units and is an acceptable method for measuring the clarity of water utilizing an electronic nephelometer (see "Standard Methods for Examination of Water and Wastewater").

"Operator" means a person who operates, repairs, maintains, and is directly employed by a public drinking water system.

"Operator Certification Commission" means the Commission appointed by the Board as an advisory Commission on public water system operator certification.

"Operating Permit" means written authorization from the Executive Secretary to actually start utilizing a facility constructed as part of a public water system.

"Optimal corrosion control treatment" for the purposes of R309-210-6 only, means the corrosion control treatment that minimizes the lead and copper concentrations at users' taps while insuring that the treatment does not cause the water system to violate any national primary drinking water regulations.

"Package Plants" refers to water treatment plants manufactured and supplied generally by one company which are reportedly complete and ready to hook to a raw water supply line. Caution, some plants do not completely comply with all requirements of these rules and will generally require additional equipment.

"PCBs" means a group of chemicals that contain polychlorinated biphenyl.

"Peak Day Demand" means the amount of water delivered to consumers by a public water system on the day of highest consumption, generally expressed in gpd or MGD. This peak day will likely occur during a particularly hot spell in the summer. In contrast, some systems associated with the skiing industry may experience their "Peak Day Demand" in the winter.

"Peak Instantaneous Demand" means calculated or estimated highest flowrate that can be expected through any water mains of the distribution network of a public water system at any instant in time, generally expressed in gpm or cfs (refer to section R309-510-9).

"Person" means an individual, corporation, company, association, partnership; municipality; or State, Federal, or tribal agency.

"Picocurie" (pCi) means that quantity of radioactive material producing 2.22 nuclear transformations per minute.

"Plan Approval" means written approval, by the Executive Secretary, of contract plans and specifications for any public drinking water project which have been submitted for review prior to the start of construction (see also R309-500-7).

"Plug Flow" is a term to describe when water flowing through a tank, basin or reactors moves as a plug of water without ever dispersing or mixing with the rest of the water flowing through the tank.

"Point of Disinfectant Application" is the point where the disinfectant is applied and water downstream of that point is not subject to re-contamination by surface water runoff.

"Point of Diversion"(POD) is the point at which water from a surface source enters a piped conveyance, storage tank, or is otherwise removed from open exposure prior to treatment.

"Point-of-Entry Treatment Device" means a treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in the drinking water distributed throughout the house or building.

"Point-of-Use Treatment Device" means a treatment device applied to a single tap used for the purpose of reducing contaminants in drinking water at that one tap.

"Point source" means any discernible, confined, and discrete source of pollutants or contaminants, including but not limited to any site, pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, animal feeding operation with more than ten animal units, landfill, or vessel or other floating craft, from which pollutants are or may be discharged.

"Political Subdivision" means any county, city, town, improvement district, metropolitan water district, water conservancy district, special service district, drainage district, irrigation district, separate legal or administrative entity created under Title 11, Chapter 13, Interlocal Cooperation Act, or any other entity constituting a political subdivision under the laws of Utah.

"Pollution source" means point source discharges of contaminants to ground or surface water or potential discharges of the liquid forms of "extremely hazardous substances" which are stored in containers in excess of "applicable threshold planning quantities" as specified in SARA Title III. Examples of possible pollution sources include, but are not limited to, the following: storage facilities that store the liquid forms of extremely hazardous substances, septic tanks, drain fields, class V underground injection wells, landfills, open dumps, landfilling of sludge and septage, manure piles, salt piles, pit privies, drain lines, and animal feeding operations with more than ten animal units.

The following definitions are part of R309-600 and clarify the meaning of "pollution source:"

(1) "Animal feeding operation" means a lot or facility where the following conditions are met: animals have been or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period, and crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. Two or more animal feeding operations under common ownership are considered to be a single feeding operation if they adjoin each other, if they use a common area, or if they use a common system for the disposal of wastes.

(2) "Animal unit" means a unit of measurement for any animal feeding operation calculated by adding the following numbers; the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 55 pounds multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0.

(3) "Extremely hazardous substances" means those substances which are identified in the Sec. 302(EHS) column of the "TITLE III LIST OF LISTS - Consolidated List of Chemicals Subject to Reporting Under SARA Title III," (EPA 550-B-96-015). A copy of this document may be obtained from: NCEPI, PO Box 42419, Cincinnati, OH 45202. Online ordering is also available at <http://www.epa.gov/ncepihom/orderpub.html>.

"Potential contamination source" means any facility or site which employs an activity or procedure which may potentially contaminate ground or surface water. A pollution source is also a potential contamination source.

"ppm" means parts per million and is one way of expressing the concentration of a chemical in water. At small concentrations generally used, ppm is synonymous with "mg/l" (milligrams per liter).

"Practical Quantitation Level" (PQL) means the required analysis standard for laboratory certification to perform lead and copper analyses. The PQL for lead is .005 milligrams per liter and the PQL for copper is 0.050 milligrams per liter.

"Primary Disinfection" means the adding of an acceptable primary disinfectant during the treatment process to provide adequate levels of inactivation of bacteria and pathogens. The effectiveness is measured through "CT" values and the "Total Inactivation Ratio." Acceptable primary disinfectants are, chlorine, ozone, and chlorine dioxide (see also "CT" and "CT_{99.9}").

"Principal Forgiveness" means a loan wherein a portion of the loan amount is "forgiven" upon closing the loan. The terms for principal forgiveness will be as directed by R309-705-8, and by the Board.

"Project Costs" include the cost of acquiring and constructing any drinking water project including, without limitation: the cost of acquisition and construction of any facility or any modification, improvement, or extension of such facility; any cost incident to the acquisition of any necessary property, easement or right of way; engineering or architectural fees, legal fees, fiscal agent's and financial advisors' fees; any cost incurred for any preliminary planning to determine the economic and engineering feasibility of a proposed project; costs of economic investigations and studies, surveys, preparation of designs, plans, working drawings, specifications and the inspection and supervision of the construction of any facility; interest accruing on loans made under this program during acquisition and construction of the project; and any other cost incurred by the political subdivision, the Board or the Department of Environmental Quality, in connection with the issuance of obligation of the political subdivision to evidence any loan made to it under the law.

"Protected aquifer" means a producing aquifer in which the following conditions are met:

- (1) A naturally protective layer of clay, at least 30 feet in thickness, is present above the aquifer;
- (2) the PWS provides data to indicate the lateral continuity of the clay layer to the extent of zone two; and
- (3) the public supply well is grouted with a grout seal that extends from the ground surface down to at least 100 feet below the surface, and for a thickness of at least 30 feet through the protective clay layer.

"Public Drinking Water Project" means construction, addition to, or modification of any facility of a public water system which may affect the quality or quantity of the drinking water (see also section R309-500-6).

"Public Water System" (PWS) means a system, either publicly or privately owned, providing water through constructed conveyances for human consumption and other domestic uses, which has at least 15 service connections or serves an average of at least 25 individuals daily at least 60 days out of the year and includes collection, treatment, storage, or distribution facilities under the control of the operator and used primarily in connection with the system, or collection, pretreatment or storage facilities used primarily in connection with the system but not under his control (see 19-4-102 of the Utah Code Annotated). All public water systems are further categorized into three different types, community (CWS), non-transient non-community (NTNCWS), and transient non-community (TNCWS). These categories are important with respect to required monitoring and water quality testing found in R309-205 and R309-210 (see also definition of "water system").

"Raw Water" means water that is destined for some treatment process that will make it acceptable as drinking water. Common usage of terms such as lake or stream water, surface water or irrigation water are synonymous with raw water.

"Recreational Home Developments" are subdivision type developments wherein the dwellings are not intended as permanent domiciles.

"Recreational Vehicle Park" means any site, tract or parcel of land on which facilities have been developed to provide temporary living quarters for individuals utilizing recreational vehicles. Such a park may be developed or owned by a private, public or non-profit organization catering to the general public or restricted to the organizational or institutional member and their guests only.

"Regional Operator" means a certified operator who is in direct responsible charge of more than one public drinking water system.

"Regionalized Water System" means any combination of water systems which are physically connected or operated or managed as a single unit.

"Rem" means the unit of dose equivalent from ionizing radiation to the total body or any internal organ or organ system. A "millirem" (mrem) is 1/1000 of a rem.

"Renewal Course" means a course of instruction, approved by the Subcommittee, which is a prerequisite to the renewal of a Backflow Technician's Certificate.

"Repeat compliance period" means any subsequent compliance period after the initial compliance period.

"Replacement well" means a public supply well drilled for the sole purpose of replacing an existing public supply well which is impaired or made useless by structural difficulties and in which the following conditions are met:

- (1) the proposed well location shall be within a radius of 150 feet from an existing ground water supply well; and
- (2) the PWS provides a copy of the replacement application approved by the State Engineer (refer to Section 73-3-28 of the Utah Code).

"Required reserve" means funds set aside to meet requirements set forth in a loan covenant/bond indenture.

"Residual Disinfectant Concentration" ("C" in CT calculations) means the concentration of disinfectant, measured in mg/L, in a representative sample of water.

"Restricted Certificate" means that the operator has qualified by passing an examination but is in a restricted certification status due to lack of experience as an operator.

"Roadway Rest Stop" shall mean any building, or buildings, or grounds, parking areas, including the necessary toilet, hand washing, water supply and wastewater facilities intended for the accommodation of people using such facilities while traveling on public roadways. It does not include scenic view or roadside picnic areas or other parking areas if these are properly identified

"Routine Chemical Monitoring Violation" means no routine chemical sample(s) was taken as required in R309-205, R309-210 and R309-215.

"Safe Yield" means the annual quantity of water that can be taken from a source of supply over a period of years without depleting the source beyond its ability to be replenished naturally in "wet years".

"Sanitary Seal" means a cap that prevents contaminants from entering a well through the top of the casing.

"scfm/sf" means standard cubic foot per minute per square foot and is one way of expressing flowrate of air at standard density through a filter or duct area.

"Secondary Disinfection" means the adding of an acceptable secondary disinfectant to assure that the quality of the water is maintained throughout the distribution system. The effectiveness is measured by maintaining detectable disinfectant residuals throughout the distribution system. Acceptable secondary disinfectants are chlorine, chloramine, and chlorine dioxide.

"Secondary Maximum Contaminant Level" means the advisable maximum level of contaminant in water which is delivered to any user of a public water system.

"Secretary to the Subcommittee" means that individual appointed by the Executive Secretary to conduct the business of the Subcommittee.

"Sedimentation" means a process for removal of solids before filtration by gravity or separation.

"Semi-Developed Camp" means a campground accessible by any type of vehicular traffic. Facilities are provided for both protection of site and comfort of users. Roads, trails and campsites are defined and basic facilities (water, flush toilets and/or vault toilets, tables, fireplaces or tent pads) are provided. These camps include but are not limited to National Forest campgrounds, Bureau of Reclamation campgrounds, and youth camps.

"Service Connection" means the constructed conveyance by which a dwelling, commercial or industrial establishment, or other water user obtains water from the supplier's distribution system. Multiple dwelling units such as condominiums or apartments, shall be considered to have a single service connection, if fed by a single line, for the purpose of microbiological repeat sampling; but shall be evaluated by the supplier as multiple "equivalent residential connections" for the purpose of source and storage capacities.

"Service Factor" means a rating on a motor to indicate an increased horsepower capacity beyond nominal nameplate capacity for occasional overload conditions.

"Service line sample" means a one-liter sample of water collected in accordance with R309-210-6(3)(b)(iii), that has been standing for at least 6 hours in a service line.

"Single family structure" for the purposes of R309-210-6 only, means a building constructed as a single-family residence that is currently used as either a residence or a place of business.

"Small water system" means a public water system that serves 3,300 persons or fewer.

"Specialist" means a person who has successfully passed the written certification exam and meets the required experience, but who is not in direct employment with a Utah public drinking water system.

"Stabilized drawdown" means that there is less than 0.5 foot of change in water level measurements in a pumped well for a minimum period of six hours.

"Standard sample" means the aliquot of finished drinking water that is examined for the presence of coliform bacteria.

"SOCs" means synthetic organic chemicals.

"Stabilized Drawdown" means the drawdown measurements taken during a constant-rate yield and drawdown test as outlined in subsection R309-515-14(10)(b) are constant (no change).

"Subcommittee" means the Cross Connection Control Subcommittee.

"Supplier of water" means any person who owns or operates a public water system.

"Surface Water" means all water which is open to the atmosphere and subject to surface runoff (see also section R309-204-5(1)). This includes conveyances such as ditches, canals and aqueducts, as well as natural features.

"Surface Water Systems" means public water systems using surface water or ground water under the direct influence of surface water as a source that are subject to filtration and disinfection (Federal SWTR subpart H) and the requirements of R309-215 "Monitoring and Water Quality: Treatment Plant Monitoring Requirements."

"Surface Water Systems (Large)" means public water systems using surface water or ground water under the direct influence of surface water as a source that are subject to filtration and disinfection and serve a population of 10,000 or greater (Federal SWTR subpart P and L) and the requirements of R309-215 "Monitoring and Water Quality: Treatment Plant Monitoring Requirements."

"Surface Water Systems (Small)" means public water systems using surface water or ground water under the direct influence of surface water as a source that are subject to filtration and disinfection and serve a population less than 10,000 (Federal SWTR subpart L, T and P (sanitary survey requirements)) and the requirements of R309-215 "Monitoring and Water Quality: Treatment Plant Monitoring Requirements."

"Susceptibility" means the potential for a PWS (as determined at the point immediately preceding treatment, or if no treatment is provided, at the entry point to the distribution system) to draw water contaminated above a demonstrated background water quality concentration through any overland or subsurface pathway. Such pathways may include cracks or fissures in or open areas of the surface water intake, and/or the wellhead, and/or the pipe/conveyance between the intake and the water distribution system or treatment.

"SUVA" means Specific Ultraviolet Absorption at 254 nanometers (nm), an indicator of the humic content of water. It is a calculated parameter obtained by dividing a sample's ultraviolet absorption at a wavelength of 254 nm (UV_{254}) (in m^{-1}) by its concentration of dissolved organic carbon (DOC) (in mg/L).

"System with a single service connection" means a system which supplies drinking water to consumers via a single service line.

"T" is short for "Contact Time" and is generally used in conjunction with either the residual disinfectant concentration (C) in determining CT or the velocity gradient (G) in determining mixing energy GT.

"Ten State Standards" refers to the Recommended Standards For Water Works, 1997 by the Great Lakes Upper Mississippi River Board of State Public Health and Environmental Managers available from Health Education Services, A Division of Health Research Inc., P.O. Box 7126, Albany, New York 12224, (518)439-7286.

"Time of travel" means the time required for a particle of water to move in the producing aquifer from a specific point to a ground water source of drinking water. It also means the time required for a particle of water to travel from a specific point along a surface water body to an intake.

"Total Inactivation Ratio" is the sum of all the inactivation ratios calculated for a series of disinfection sequences, and is indicated or shown as: "Summation sign ($CT_{calc}/CT_{req'd}$).\" A total inactivation ratio equal to or greater than 1.0 is assumed to provide the required inactivation of Giardia lamblia cysts. $CT_{calc}/CT_{99.9}$ equal to 1.0 provides 99.9 percent (3-log) inactivation, whereas CT_{calc}/CT_{90} equal to 1.0 only provides 90 percent (1-log) inactivation.

"Too numerous to count" (TNTC) means that the total number of bacterial colonies exceeds 200 on a 47 mm diameter membrane filter used for coliform detection.

"Total Organic Carbon" (TOC) means total organic carbon in mg/L measured using heat, oxygen, ultraviolet irradiation, chemical oxidants, or combinations of these oxidants that convert organic carbon to carbon dioxide, rounded to two significant figures.

"Total Trihalomethanes" (TTHM) means the MCL for trihalomethanes. This is the sum of four of ten possible isomers of chlorine/bromine/methane compounds, all known as trihalomethanes (THM). TTHM is defined as the arithmetic sum of the concentrations in micro grams per liter of only four of these (chloroform, bromodichloromethane, dibromochloromethane, and bromoform) rounded to two significant figures. This measurement is made by samples which are "quenched," meaning that a chlorine neutralizing agent has been added, preventing further THM formation in the samples.

"Training Coordinating Committee" means the voluntary association of individuals responsible for environmental training in the state of Utah.

"Transient Non-Community Water System" (TNCWS) means a non-community public water system that does not serve 25 of the same nonresident persons per day for more than six months per year. Examples of such systems are those, RV

park, diner or convenience store where the permanent nonresident staff number less than 25, but the number of people served exceeds 25.

"Treatment Plant" means those facilities capable of providing any treatment to any water serving a public drinking water system. (Examples would include but not be limited to disinfection, conventional surface water treatment, alternative surface water treatment methods, corrosion control methods, aeration, softening, etc.)

"Treatment Plant Manager" means the individual responsible for all operations of a treatment plant.

"Trihalomethanes" (THM) means any one or all members of this class of organic compounds.

"Trihalomethane Formation Potential" (THMFP) - these samples are collected just following disinfection and measure the highest possible TTHM value to be expected in the water distribution system. The formation potential is measured by not neutralizing the disinfecting agent at the time of collection, but storing the sample seven days at 25 degrees C prior to analysis. A chlorine residual must be present in these samples at the end of the seven day period prior to analysis for the samples to be considered valid for this test. Samples without a residual at the end of this period must be resampled if this test is desired.

"Turbidity Unit" refers to NTU or Nephelometric Turbidity Unit.

"UDI" means under direct influence (see also "Ground Water Under the Direct Influence of Surface Water").

"Uncovered finished water storage facility" is a tank, reservoir, or other facility used to store water that will undergo no further treatment except residual disinfection and is open to the atmosphere.

"Unprotected aquifer" means any aquifer that does not meet the definition of a protected aquifer.

"Unregulated Contaminant" means a known or suspected disease causing contaminant for which no maximum contaminant level has been established.

"Unrestricted Certificate" means that a certificate of competency issued by the Executive Secretary when the operator has passed the appropriate level written examination and has met all certification requirements at the discipline and grade stated on the certificate.

"Virus" means a virus of fecal origin which is infectious to humans.

"Waterborne Disease Outbreak" means the significant occurrence of acute infectious illness, epidemiologically associated with the ingestion of water from a public water system, as determined by the appropriate local or State agency.

"Watershed" means the topographic boundary that is the perimeter of the catchment basin that contributes water through a surface source to the intake structure. For the purposes of surface water DWSP, if the topographic boundary intersects the state boundary, the state boundary becomes the boundary of the watershed.

"Water Supplier" means a person who owns or operates a public drinking water system.

"Water System" means all lands, property, rights, rights-of-way, easements and related facilities owned by a single entity, which are deemed necessary or convenient to deliver drinking water from source to the service connection of a consumer(s). This includes all water rights acquired in connection with the system, all means of conserving, controlling and distributing drinking water, including, but not limited to, diversion or collection works, springs, wells, treatment plants, pumps, lift stations, service meters, mains, hydrants, reservoirs, tanks and associated appurtenances within the property or easement boundaries under the control of or controlled by the entity owning the system.

In accordance with R309, certain water systems may be exempted from monitoring requirements, but such exemption does not extend to submittal of plans and specifications for any modifications considered a public drinking water project.

"Wellhead" means the physical structure, facility, or device at the land surface from or through which ground water flows or is pumped from subsurface, water-bearing formations.

"Zone of Influence" corresponds to area of the upper portion of the cone of depression as described in "Groundwater and Wells," second edition, by Fletcher G. Driscoll, Ph.D., and published by Johnson Division, St. Paul, Minnesota.

KEY:

drinking water, definitions

Date of Enactment or Last Substantive Amendment

December 9, 2002

Notice of Continuation

September 16, 2002

Authorizing Implemented or Interpreted Law

19-4-104; 63-46b-4

DDW Version

Revised 2/12/03

R309-700 State Drinking Water Project Revolving Loan Program (Effective November 15, 2002)

Table of Contents

R309-700-1. Purpose.	43
R309-700-2. Statutory Authority.	43
R309-700-3. Definitions and Eligibility.	43
R309-700-4. Application and Project Initiation Procedures.	44
R309-700-5. Loan, Credit Enhancement, Interest Buy-Down, and Hardship Grant Consideration Policy.	47
R309-700-6. Planning Advance.	53
R309-700-7. Design Advance.	53
R309-700-8. Technical Assistance.	54
R309-700-9. Credit Enhancement Agreements.	54
R309-700-10. Interest Buy-Down Agreements.	55
R309-700-11. Loans.	55
R309-700-12. Project Authorization (Reference R309-700-4(4)).	55
R309-700-13. Financial Evaluations.	56
R309-700-14. Committal of Funds and Approval of Agreements.	59
R309-700-15. Construction.	59

This Page Intentionally Left Blank

R309-700. State Drinking Water Project Revolving Loan Program

R309-700-1. Purpose.

This rule establishes criteria for financial assistance to public drinking water systems in accordance with Title 73, Chapter 10c, Utah Code Annotated using funds made available by the Utah legislature from time to time for this purpose.

R309-700-2. Statutory Authority.

The authority for the Department of Environmental Quality acting through the Drinking Water Board to issue loans to political subdivisions to finance all or part of drinking water project costs and to enter into "credit enhancement agreements", "interest buy-down agreements", and "Hardship Grants" is provided in Chapter 10c, Title 73, Utah Code.

R309-700-3. Definitions and Eligibility.

Title 73, Chapter 10c, subsection 4(2)(a) limits eligibility for financial assistance under this section to political subdivisions.

Definitions for terms used in this rule are given in R309-110. Definitions for terms specific to this rule are given below.

“Board” means the Drinking water Board.

“Drinking Water Project” means any work or facility necessary or desirable to provide water for human consumption and other domestic uses. Its scope includes collection, treatment, storage, and distribution facilities.

“Project Costs” include the cost of acquiring and constructing any project including, without limitation: the cost of acquisition and construction of any facility or any modification, improvement, or extension of such facility; any cost incident to the acquisition of any necessary project, easement or right of way, except property condemnation cost, which are not eligible costs; engineering or architectural fees, legal fees, fiscal agents’ and financial advisors’ fees; any cost incurred for any preliminary planning to determine the economic and engineering feasibility of a proposed project; costs of economic investigations and studies, surveys, preparation of designs, plans, working drawings, specifications and the inspection and supervision of the construction of any facility; Hardship Grant Assessments and interest accruing on loans made under this program during acquisition and construction of the project; and any other cost

incurred by the Board or the Department of Environmental Quality, in connection with the issuance of obligation to evidence any loan made to it under the law.

“Drinking Water Project Obligation” means any bond, note or other obligation issued to finance all or part of the cost of acquiring, constructing, expanding, upgrading or improving a drinking water project, including, but not limited to, preliminary planning, studies, surveys, engineering or architectural fees, and preparation of plans and specifications.

“Credit Enhancement Agreement” means any agreement entered into between the Board, on behalf of the State, and an eligible water system for the purpose of providing methods and assistance to eligible water systems to improve the security for and marketability of drinking water project obligations.

“Eligible Water System” means any community drinking water system which is owned by a political subdivision of the State.

“Interest Buy-Down Agreement” means any agreement entered into between the Board, on behalf of the State, and an eligible water system, for the purpose of reducing the cost of financing incurred by an eligible water system on bonds issued by the subdivision for project costs.

“Financial Assistance” means a project loan, credit enhancement agreement, interest buy-down agreement, or technical assistance.

“Interest” means an assessment applied to loan recipients. The assessment shall be calculated as a percentage of principal.

“Emergency” means an unexpected, serious occurrence of situation requiring urgent or immediate action. With regard to a water system this would be a situation resulting from the failure of equipment or other infrastructure, or contamination of the water supply, which threatens the health and / or safety of the public / water users.

“Technical Assistance” means financial assistance provided for a feasibility study or master plan, to identify and / or correct system deficiencies, to help a water system overcome other technical problems. The system receiving said technical assistance may or may not be required to repay the funds received. If repayment is required, the Board will establish the terms of repayment.

R309-700-4. Application and Project Initiation Procedures.

The following procedures must normally be followed to obtain financial assistance from the Board:

- (1) It is the responsibility of the applicant to obtain the necessary financial, legal and engineering counsel to prepare an effective and appropriate financial assistance agreement, including cost effectiveness evaluations of financing methods and alternatives, for consideration by the Board.
- (2) A completed application form, project engineering report as appropriate, and financial capability assessment are submitted to the Board. Comments from the local health department and/or district engineer shall accompany the application. Comments from other interested parties such as an association of governments will also be accepted.
- (3) The staff prepares an engineering and financial feasibility report on the project for presentation to the Board.
- (4) The Board "Authorizes" financial assistance for the project on the basis of the feasibility report prepared by the staff, designates whether a loan, credit enhancement agreement, interest buy-down agreement, hardship grant or any combination thereof, is to be entered into, and approves the project schedule (see R309-700-12). The Board shall authorize a hardship grant only if it determines that other financing alternatives are unavailable or unreasonably expensive to the applicant. If the applicant seeks financial assistance in the form of a loan of amounts in the security account established pursuant to Chapter 10c, Title 73 "Utah Code", which loan is intended to provide direct financing of projects costs, then the Board shall authorize such loan only if it determines that credit enhancement agreements, interest buy-down agreements and other financing alternatives are unavailable or unreasonably expensive to the applicant or that a loan represents the financing alternative most economically advantageous to the state and the applicant; provided, that for purposes of this paragraph and for purposes of Section 73-10c-4(2), Utah Code the term "loan" shall not include loans issued in connection with interest buy-down agreements as described in R309-700-10(2) or in connection with any other interest buy-down arrangement.
- (5) Planning Advance - The applicant requesting a Planning Advance must attend a preapplication meeting, complete an application for a Planning Advance, prepare a plan of study, satisfactorily demonstrate procurement of planning services, and prepare a draft contract for planning services including financial evaluations.
- (6) Design Advance - The applicant requesting a Design Advance must have completed an engineering plan which meets program requirements.
- (7) The project applicant must demonstrate public support for the project.
- (8) For financial assistance mechanisms when the applicant's bond is purchased by the Board, the project applicant's bond documentation, including an opinion from legal counsel experienced in bond matters that the drinking water project obligation is a valid

and binding obligation of the applicant (see R309-700-13(3)), must be submitted to the Assistant Attorney General for preliminary approval and the applicant shall publish a Notice of Intent to issue bonds in a newspaper of general circulation pursuant to the Utah Code, Section 11-14-21. For financial assistance mechanisms when the applicant's bond is not purchased by the Board, the applicant shall submit a true and correct copy of an opinion from legal counsel experienced in bond matters that the drinking water project obligation is a valid and binding obligation of the applicant.

(9) Hardship Grant - The Board executes a grant agreement setting forth the terms and conditions of the grant.

(10) The Board issues a Plan Approval for plans and specifications and concurs in bid advertisement.

(11) If a project is designated to be financed by a loan or an interest buy-down agreement as described in R309-700-10(2), from the Board, to cover any part of project costs an account supervised by the applicant and the Board will be established by the applicant to assure that loan funds are used only for qualified project costs. If financial assistance for the project is provided by the Board in the form of a credit enhancement or interest buy-down agreement as described in R309-700-10(1) all project funds will be maintained in a separate account and a quarterly report of project expenditures will be provided to the Board.

(12) For a revenue bond a User Charge Ordinance must be submitted to the Board for review and approval to insure adequate provisions for debt retirement and/or operation and maintenance. For a general obligation bond, a User Charge Ordinance must be submitted to the Board for review and approval to insure the system will have adequate resources to provide acceptable service.

(13) A plan of operation, for the project after construction is complete, including adequate staffing with an operator, certified at the appropriate level in accordance with R309-301 in responsible charge, training, and start up procedures to assure efficient operation and maintenance of the facilities, must be submitted by the applicant and approved by the Board.

(14) The applicant's contract with its engineer must be submitted to the Board for review to determine that there will be adequate engineering involvement, including project supervision and inspection, to successfully complete the project.

(15) The applicant's attorney must provide an opinion to the Board regarding legal incorporation of the applicant, valid legal title to rights-of-way and the project site, and adequacy of bidding and contract documents.

(16) A position fidelity bond must be provided for the treasurer or other local staff handling the repayment funds and revenues produced by the applicant's system.

(17) CREDIT ENHANCEMENT AGREEMENT AND INTEREST BUY-DOWN AGREEMENT ONLY - The Board issues the credit enhancement agreement or interest buy-down agreement setting forth the terms and conditions of the security or other forms of assistance provided by the agreement and notifies the applicant to sell the bonds (See R309-700-9 and -10).

(18) CREDIT ENHANCEMENT AGREEMENT AND INTEREST BUY-DOWN AGREEMENT ONLY - The applicant sells the bonds on the open market and notifies the Board of the terms of sale. If a credit enhancement agreement is being utilized, the bonds sold on the open market shall contain the legend required by Section 73-10c-6(3)(d), Utah Code. If an interest buy-down agreement is being utilized, the bonds sold on the open market shall bear a legend which makes reference to the interest buy-down agreement and states that such agreement does not constitute a pledge of or charge against the general revenues, credit or taxing powers of the state and that the holder of any such bond may look only to the applicant and the funds and revenues pledged by the applicant for the payment of interest and principal on the bonds.

(19) The applicant opens bids for the project.

(20) LOAN ONLY - The Board gives final approval to purchase the bonds and execute the loan contract (see R309-700-4(23)).

(21) LOAN ONLY - The final closing of the loan is conducted.

(22) A preconstruction conference shall be held.

(23) The applicant issues a written notice to proceed to the contractor.

(24) The applicant must have in place a Water Management and Conservation Plan.

R309-700-5. Loan, Credit Enhancement, Interest Buy-Down, and Hardship Grant Consideration Policy.

(1) Board Priority Determination. In determining the priority for financial assistance the Board shall consider:

- (a) The ability of the applicant to obtain funds for the drinking water project from other sources or to finance such project from its own resources;
- (b) The ability of the applicant to repay the loan or other project obligations;
- (c) Whether a good faith effort to secure all or part of the services needed from the private sector through privatization has been made; and

- (d) Whether the drinking water project:
- (i) meets a critical local or state need;
 - (ii) is cost effective;
 - (iii) will protect against present or potential hazards;
 - (iv) is needed to comply with the minimum standards of the Federal Safe Drinking Water Act, 42 USC, 300f, et. seq. or similar or successor statute;
 - (v) is needed to comply with the minimum standards of the Utah Safe Drinking Water Act, Title 19, Chapter 4 or similar or successor statute.
 - (vi) is needed as a result of an Emergency.
- (e) The overall financial impact of the proposed project on the citizens of the community, including direct and overlapping indebtedness, tax levies, user charges, impact or connection fees, special assessments, etc., resulting from the proposed project, and anticipated operation and maintenance costs versus the median income of the community;
- (f) Consistency with other funding source commitments which may have been obtained for the project;
- (g) The point total from an evaluation of the criteria listed in Table 1;

Table 1 NEED FOR PROJECT		
1. PUBLIC HEALTH AND WELFARE (SELECT ONE)		POINTS
	A. There is evidence that waterborne illnesses have occurred.....	15
	B. There are reports of illnesses which may be waterborne	10
	C. No reports of waterborne illness, but high potential for such exists	5
	D. No reports of possible waterborne illness and low potential for such exists	0
2. WATER QUALITY RECORD (SELECT ONE)		
	A. Primary Maximum Contaminant Level (MCL) violation more than 6 times in preceding 12 months	15
	B. In the past 12 months violated a primary MCL 4 to 6 times.....	12
	C. In the past 12 months violated a primary MCL 2 to 3 times or exceeded the Secondary Drinking Water Standards by double	9
	D. In the past 12 months violated MCL 1 time	6

	E. Violation of the Secondary Drinking Water Standards	5
	F. Does not meet all applicable MCL goals	3
	G. Meets all MCL's and MCL goals	0
3. VERIFICATION OF POTENTIAL SHORTCOMINGS (SELECT ONE)		
	A. Has had sanitary survey within the last year	5
	B. Has had sanitary survey within the last five years.....	3
	C. Has not had sanitary survey within last five years	0
4. GENERAL CONDITIONS OF EXISTING FACILITIES (SELECT ALL THOSE WHICH ARE TRUE AND PROJECT WILL REMEDY)		
	A. The necessary water treatment facilities do not exist, not functioning, functioning but do not meet the requirements of the Utah Public Drinking Water Rules (UPDWR)	10
	B. Sources are not developed or protected according to UPDWR.	10
	C. Source capacity is not adequate to meet current demands and system occasionally goes dry or suffers from low pressures	10
	D. Significant areas within distribution system have inadequate fire protection.....	8
	E. Existing storage tanks leak excessively or are structurally flawed	5
	F. Pipe leak repair rate is greater than 4 leaks per 100 connections per year	2
	G. Existing facilities are generally sound and meeting existing needs	0
5. ABILITY TO MEET FUTURE DEMANDS (SELECT ONE)		
	A. Facilities have inadequate capacity and cannot reliably meet current demands	10
	B. Facilities will become inadequate within the next three years ..	5
	C. Facilities will become inadequate within the next five to ten years	3
6. OVERALL URGENCY (SELECT ONE)		
	A. System is generally out of water. There is no fire protection or water for flushing toilets	10
	B. System delivers water which cannot be rendered safe by boiling.....	10
	C. System delivers water which can be rendered safe by boiling ..	8
	D. System is occasionally out of water	5
	E. Situation should be corrected, but is not urgent	0
	TOTAL POSSIBLE POINTS NEEDED FOR PROJECT	100

(h) Other criteria that the Board may deem appropriate.

(2) Drinking Water Board Financial Assistance Determination. The amount and type of financial assistance offered will be based on the following considerations:

(a) An evaluation based upon the criteria in Tables 2 and 3 of the applicant's financial condition, the project's impact on the community, and the applicant's commitment to operating a responsible water system.

The interest rate to be charged by the Board for its financial assistance will be computed using the number of points assigned to the project from Table 2 to reduce, in a manner determined by Board resolution from time to time, the most recent market yields for "A" rated, tax exempt, 20 year municipal revenue bonds. The interest rate so calculated will be assigned to the financial assistance. This interest rate may be further reduced, in a manner determined by Board resolution from time to time, by the ratio of the number of points assigned to the applicant's water system from Table 3 to the total points available.

For hardship grant consideration, exclusive of advances for planning and design, the estimated annual cost of drinking water service for the average residential user should exceed 1.75% of the median adjusted gross household income from the most recent available State Tax Commission records. The Board will also consider the applicant's level of contribution to the project.

TABLE 2		
FINANCIAL CONSIDERATIONS		
1. COST EFFECTIVENESS RATIO	(SELECT ONE)	POINTS
	A. Project cost \$0 to \$500 per benefitting connection	15
	B. \$501 to \$1,500	12
	C. 1,501 to \$2,000	9
	D. \$2,001 to \$3,000	6
	E. \$3,001 to \$5,000.....	3
	F. \$5,001 to \$10,000.....	1
	G. Over \$10,000	0
2. PRIVATE SECTOR OR OTHER FUNDING, BUT NOT OWN CONTRIBUTION	(SELECT ONE)	
	A. A reasonable search for it has been made without success	10
	B. Will provide greater than 50% of project cost.....	10
	C. Will provide 25 to 49% of project cost	8
	D. Will provide 10 to 24% of project cost.....	5
	E. Will provide 1 to 9% of project cost.....	3
	F. Has not been investigated.....	0
3. CURRENT LOCAL MEDIAN ADJUSTED GROSS INCOME (AGI)		

	A. Less than 70% of State Median AGI.....	15
	B. 71 to 90% of State Median AGI	12
	C. 91 to 115% of State Median AGI	9
	D. 116 to 135% of State Median AGI	6
	E. 136 to 160% of State Median AGI.....	3
	F. Greater than 161% of State Median AGI.....	0
4. APPLICANT'S COMMITMENT TO PROJECT		
4A. PROJECT FUNDING CONTRIBUTED BY APPLICANT (SELECT ONE)		
	a. Greater than 25% of project funds	15
	b. 10 to 25% of project funds	12
	c. 5 to 9% of project funds.....	9
	d. 2 to 4% of project funds	6
	e. Less than 2% of project funds	0
4B. RESIDENTS ARE WILLING TO (and it is confirmed by residents)INCREASE WATER BILL BY (SELECT ONE)		
	a. Greater than \$10.00 per month per connection	15
	b. \$5.01 to \$10.00 per month per connection.....	11
	c. \$2.51 to \$5.00 per month per connection.....	7
	d. \$1.00 to \$2.50 per month per connection.....	3
	e. Less than \$1.00 per month per connection.....	0
5. ABILITY TO REPAY LOAN		
5A. WATER BILL (INCLUDING TAXES) AFTER PROJECT IS BUILT, RELATIVE TO LOCAL MEDIAN AGI (SELECT ONE)		
	a. Greater than 2.50% of local median AGI	15
	b. 2.01 to 2.50% of local median AGI.....	11
	c. 1.51 to 2.00% of local median AGI	7
	d. 1.01 to 1.50% of local median AGI.....	3
	e. 0 to 1.00% of local median AGI	0
5B. TOTAL DEBT LOAD (PRINCIPAL ONLY) OF APPLICANT AFTER PROJECT IS CONSTRUCTED (INCLUDING WATER AND SEWER DEBT, LIGHTING DEBT, SCHOOL DEBT, ETC..) (SELECT ONE)		
	a. Greater than 12% of fair market value	15
	b. 8.1 to 12% of fair market value	12
	c. 4.1 to 8.0% of fair market value	9
	d. 2.1 to 4.0% of fair market value	6
	e. 1.0 to 2.0% of fair market value	3
	f. Less than 1% of fair market value	0
	TOTAL POSSIBLE POINTS FOR FINANCIAL NEED	100

TABLE 3		
SPECIAL INCENTIVES		
POINTS		
1.	Applicant has secured adequate protection zones for all existing drinking water sources.....	5
2.	Applicant has developed a master plan to guide water system growth in the next 20 years	5
3.	Applicant has an established replacement fund	5
4.	Project will create a new regionalization plan or maintain integrity of existing regionalization plan if regionalization is possible in the judgment of the Board. If not, the points will not be assigned and the total possible points will be 35	5
5.	Applicant has established a backflow prevention program.....	5
6.	Applicant has established a rate structure to encourage water conservation.....	5
7.	Project is necessary because of unforeseen circumstances	5
8.	Applicant has a written emergency response plan	5
TOTAL POSSIBLE POINTS FOR SPECIAL INCENTIVES		40

(b) Optimizing return on the security account while still allowing the project to proceed.

(c) Local political and economic conditions.

(d) Cost effectiveness evaluation of financing alternatives.

- (e) Availability of funds in the security account.
- (f) Environmental need.
- (g) Other criteria the Board may deem appropriate.

R309-700-6. Planning Advance.

- (1) A Planning advance can only be made to a political subdivision which demonstrates a financial hardship which prevents the completion of project planning.
- (2) A Planning Advance is made to a political subdivision with the intent to provide interim financial assistance for project planning until the long-term project financing can be secured. Once the long-term project financing has been secured, the Planning Advance must be expeditiously repaid to the Board.
- (3) The applicant must demonstrate that all funds necessary to complete project planning will be available prior to commencing the planning effort. The Planning Advance will be deposited with these other funds into a supervised escrow account at the time the grant agreement between the applicant and the Board is executed.
- (4) Failure on the part of the recipient of a Planning Advance to implement the construction project may authorize the Board to seek repayment of the Advance on such terms and conditions as it may determine.
- (5) The recipient of a Planning Advance must first receive written approval for any cost increases or changes to the scope of work.

R309-700-7. Design Advance.

- (1) A Design Advance can only be made to a political subdivision which demonstrates a financial hardship which prevents the completion of project design.
- (2) A Design Advance is made to a political subdivision with the intent to provide interim financial assistance for the completion of the project design until the long-term project financing can be secured. Once the long-term project financing has been secured, the Project Design Advance must be expeditiously repaid to the Board.
- (3) The applicant must demonstrate that all funds necessary to complete the project design will be available prior to commencing the design effort. The Design Advance will be deposited with these other funds into a supervised escrow account at the time the grant agreement between the applicant and the Board is executed.

(4) Failure on the part of the recipient of a Design Advance to implement the construction project may authorize the Board to seek repayment of the Advance on such terms and conditions as it may determine.

(5) The recipient of a Design Advance must first receive written approval for any cost increases or changes to the scope of work.

R309-700-8. Technical Assistance.

The Board will establish a fund (or account) into which the proceeds of an annual fee on loans will be placed. These funds will be used to finance technical assistance for eligible water systems.

This fund will provide low interest loans for technical assistance and any other eligible purpose as defined by Section 1452 of the Safe Drinking Water Act (SDWA) Amendments of 1996 to water systems that are eligible for loans. Repayment of these loans may be waived in whole or in part (grant funds) by the Board whether or not the borrower is considered for a hardship grant.

- (1) The Board will establish a fee to be assessed against loans authorized under the Federal SRF Loan Program. The revenue generated by this fee will be placed in a new fund called the “SRF Technical Assistance Fund”.
- (2) The amount will be assessed as a percentage of the Principal Balance of the loan on an annual basis, the same as the annual interest is assessed. The borrower will pay the fee annually when paying the principal and interest.
- (3) The Board will set / change the amount of the fee from time to time as they determine meets the needs of the program.
- (4) This fee will be part of the “effective rate” calculated for the loan using Table 2 and Table 3, R309-700. This fee will not be charged in addition to said effective rate. After the effective rate has been calculated for the loan using Table 2 and Table 3, the technical assistance fee will be subtracted from it.
- (5) The proceeds of the fund will be used as defined above or as modified by the Board in compliance with Section 1452 of the SDWA Amendments of 1996.

R309-700-9. Credit Enhancement Agreements.

The Board will determine whether a project may receive all or part of a loan, credit enhancement agreement or interest buy-down agreement subject to the criteria in R309-700-5. To provide security for project obligations the Board may agree to purchase project obligations of applicants or make loans to the applicants to prevent defaults in payments on project obligations. The

Board may also consider making loans to the applicants to pay the cost of obtaining letters of credit from various financial institutions, municipal bond insurance, or other forms of insurance or security for project obligations. In addition, the Board may consider other methods and assistance to applicants to properly enhance the marketability of or security for project obligations.

R309-700-10. Interest Buy-Down Agreements.

Interest buy-down agreements may consist of:

- (1) A financing agreement between the Board and applicant whereby a specified sum is loaned or granted to the applicant to be placed in a trust account. The trust account shall be used exclusively to reduce the cost of financing for the project.
- (2) A financing agreement between the Board and the applicant whereby the proceeds of bonds purchased by the Board is combined with proceeds from publicly issued bonds to finance the project. The rate of interest on bonds purchased by the Board may carry an interest rate lower than the interest rate on the publicly issued bonds, which when blended together will provide a reduced annual debt service for the project.
- (3) Any other legal method of financing which reduces the annual payment amount on locally issued bonds. After credit enhancement agreements have been evaluated by the Board and it is determined that this method is not feasible or additional assistance is required, interest buy-down agreements and loans may be considered. Once the level of financial assistance required to make the project financially feasible is determined, a cost effective evaluation of interest buy-down options and loans must be completed. The financing alternative chosen should be the one most economically advantageous for the state and the applicant.

R309-700-11. Loans.

The Board may make loans to finance all or part of a drinking water project only after credit enhancement agreements and interest buy-down agreements have been evaluated and found either unavailable or unreasonably expensive. The financing alternative chosen should be the one most economically advantageous for the state and its political subdivisions.

R309-700-12. Project Authorization (Reference R309-700-4(4)).

A project may be "Authorized" for a loan, credit enhancement agreement, interest buy-down agreement, or hardship grant in writing by the Board following submission and favorable review of an application form, engineering report (if required), financial capability assessment and Staff feasibility report. The engineering report must include the preparation of a cost effective

analysis of feasible project alternatives capable of meeting State and Federal drinking water requirements. It shall include consideration of monetary costs including the present worth or equivalent annual value of all capital costs, operation, maintenance, and replacement costs. The alternative selected must be the most economical means of meeting applicable State and Federal drinking water requirements over the useful life of the facility while recognizing environmental and other nonmonetary considerations. If it is anticipated that a project will be a candidate for financial assistance from the Board, the Staff should be contacted, and the plan of study for the engineering report (if required) should be approved before the planning is initiated.

Once the application form, plan of study, engineering report, and financial capability assessment are reviewed, the staff will prepare a project feasibility report for the Board's consideration in Authorizing a project. The project feasibility report will include a detailed evaluation of the project with regard to the Board's funding priority criteria, and will contain recommendations for the type of financial assistance which may be extended (i.e., for a loan, credit enhancement agreement, interest buy-down agreement, or hardship grant).

Project Authorization is not a contractual commitment and is conditioned upon the availability of funds at the time of loan closing or signing of the credit enhancement, interest buy-down, or grant agreement and upon adherence to the project schedule approved at that time. If the project is not proceeding according to the project schedule the Board may withdraw the project Authorization so that projects which are ready to proceed can obtain necessary funding. Extensions to the project schedule may be considered by the Board, but any extension requested must be fully justified.

R309-700-13. Financial Evaluations.

- (1) The Board considers it a proper function to assist and give direction to project applicants in obtaining funding from such State, Federal or private financing sources as may be available to achieve the most effective utilization of resources in meeting the needs of the State. This may also include joint financing arrangements with several funding agencies to complete a total project.
- (2) Hardship Grants will be evidenced by a grant agreement.
- (3) In providing any form of financial assistance in the form of a loan, the Board may purchase bonds of the applicant only if the bonds are accompanied by a legal opinion of recognized municipal bond counsel to the effect that the bonds are legal and binding under applicable Utah law (including, if applicable, the Utah Municipal Bond Act). For bonds of \$150,000 or less the Board will not require this opinion.
 - (a) In providing any form of financial assistance in the form of a loan, the Board may purchase either a taxable or non-taxable bonds; provided that it shall be the general preference of the Board to purchase bonds issued by the applicant only if the bonds are tax exempt and are accompanied by a legal opinion of recognized municipal bond counsel to the effect that interest on the bonds is exempt from

federal income taxation. Such an opinion must be obtained by the applicant in the following situations:

- (i) Bonds which are issued to finance a project which will also be financed in part at any time by the proceeds of other bonds which are exempt from federal income taxation.
- (ii) Bonds which are not subject to the arbitrage rebate provisions of Section 148 of the Internal Revenue Code of 1986 (or successor provision of similar intent), including, without limitation, bonds covered by the "small governmental units" exemption contained in Section 148(f)(4)(c) of the Internal Revenue Code of 1986 (or any successor provision of similar intent) and bonds which are not subject to arbitrage rebate because the gross proceeds from the loan will be completely expended within six months after the issuance of such bonds.

(b) In any other situations, the Board may purchase taxable bonds if it determines, after evaluating all relevant circumstances including the applicant's ability to pay, that the purchase of the taxable bonds is in the best interests of the State and applicant.

(c) If more than 25 percent of the project is to serve industry, bond counsel must evaluate the loan to ensure the tax exempt status of the loan fund.

(d) Revenue bonds purchased by the Board shall be secured by a pledge of water system revenues, and it is the general policy of the Board that the pledge of water revenues for the payment of debt service (principal and/or interest) on a particular revenue bond be on a parity with the pledge of those water revenues as security for the debt service payments on all other bonds or other forms of indebtedness which are secured by the water revenues.

(4) The Board will consider the financial feasibility and cost effectiveness evaluation of the project in detail. The financial capability assessment must be completed as a basis for the review. The Board will generally use these reports to determine whether a project will be Authorized to receive a loan, credit enhancement agreement, interest buy-down agreement, or hardship grant (Reference R309-700-8, -9 and -10). If a project is Authorized to receive a loan, the Board will establish the portion of the construction cost to be included in the loan and will set the terms for the loan. The Board will require the applicants to repay the loan as rapidly as is reasonably consistent with the financial capability of the applicant. It is the Board's intent to avoid repayment schedules which would exceed the design life of the project facilities.

(5) Normal engineering and investigation costs incurred by the Department of Environmental Quality or Board during preliminary project investigation and prior to Board Authorization will not become a charge to the applicant if the project is found infeasible, denied by the Board, or if the applicant withdraws the Application prior to the

Board's Authorization. If the credit enhancement agreement or interest buy-down agreement does not involve a loan of funds from the Board, then administrative costs will not be charged to the project. However, if the project is Authorized to receive a loan or grant of funds from the Board, all costs from the beginning of the project will be charged to the project and paid by the applicant as a part of the total project cost. If the applicant decides not to build the project after the Board has Authorized the project, all costs accruing after the Authorization will be reimbursed by the applicant to the Board.

(6) The Board shall determine the date on which the scheduled payments of principal and interest will be made. In fixing this date, all possible contingencies shall be considered, and the Board may allow the system user one year of actual use of the project facilities before the first repayment is required.

(7) The applicant shall furnish the Board with acceptable evidence that the applicant is capable of paying its share of the construction costs during the construction period.

(8) LOANS AND INTEREST BUY-DOWN AGREEMENTS ONLY - The Board may require, as part of the loan or interest buy-down agreement, that any local funds which are to be used in financing the project be committed to construction prior to or concurrent with the committal of State funds.

(9) The Board will not forgive the applicant of any payment after the payment is due.

(10) The Board will require a debt service reserve account be established by the applicant at or before the loan is closed. Deposits to that account shall be made at least annually in the amount of one-tenth of the annual payment on the bond(s) purchased by the Board and shall continue until the total amount in the debt service reserve fund is equal to the annual payment. The debt service reserve account shall be continued until the bond is retired. Annual reports/statements will be required. Failure to maintain the reserve account will constitute a technical default on the bond(s) and may result in penalties being assessed. Annual reports/statements will be required.

(11) The Board will require a capital facilities replacement reserve account be established at or before the loan is closed. Deposits to that account shall be made at least annually in the amount of five percent (5%) of the applicant's annual drinking water system budget, including depreciation, unless otherwise specified by the Board at the time of loan authorization, until the loan is repaid. This fund shall not serve as security for the payment of principal or interest on the loan. The applicant shall adopt such resolutions as necessary to limit the use of the fund to construct capital facilities for its water system and to notify the Board prior to making any disbursements from the fund so the Board can confirm that any expenditure is for an acceptable purpose. The applicant will not need the consent of the Board prior to making any expenditure from the fund. Failure to maintain the reserve account will constitute a technical default on the bond(s) and may result in penalties being assessed. Annual reports/statements will be required.

(12) If the Board is to purchase a revenue bond, the Board will require that the applicant's water rates be established such that sufficient net revenue will be raised to provide at least 125% (or such other amount as the Board may determine) of the total annual debt service.

R309-700-14. Committal of Funds and Approval of Agreements.

After the Board has approved the plans and specifications by the issuance of a Plan Approval and has received the appropriate legal documents and other items listed on the financial assistance checklist, the loan will be considered by the Board for final approval. The Board will determine whether the project loan, interest buy-down agreement or grant agreement is in proper order on the basis of the previous authorization. The Executive Secretary may then close the loan or credit enhancement agreement if obligations to the Board or other aspects of the project have not changed significantly since the Board's authorization of the loan or credit enhancement, provided all conditions imposed by the Board have been met. If significant changes have occurred the Board will then review the project and, if satisfied, the Board will then commit funds, approve the signing of the contract, credit enhancement agreement, interest buy-down agreement, or grant agreement, and instruct the Executive Secretary to submit a copy of the signed contract or agreement to the Division of Finance.

R309-700-15. Construction.

The Division of Drinking Water staff may conduct inspections and will report to the applicant. Contract change orders must be properly negotiated with the contractor and approved in writing. Change orders in excess of \$10,000 must receive prior written approval by the Executive Secretary before execution. Upon successful completion of the project and recommendation of the applicant's engineer, the applicant will request the Executive Secretary to conduct a final inspection. When the project is complete to the satisfaction of the applicant's engineer, the Executive Secretary and the applicant, written approval will be issued by the Executive Secretary to commence using the project facilities.

KEY

loans, interest buy-down, credit enhancement, hardship grant

Date of Enactment or Last Substantive Amendment

November 15, 2002

Notice of Continuation

September 16, 2001

Authorizing Implemented or Interpreted Law

19-4-104; 73-10c

DDW Version

Revised 2/12/03

R309-705 Federal Drinking Water Project Revolving Loan Program (Effective November 15, 2002)

Table of Contents

R309-705-1. Purpose.....	63
R309-705-2. Statutory Authority.....	63
R309-705-3. Definitions.....	63
R309-705-4. Financial Assistance Methods.....	65
(1) Eligible Activities of the SRF.....	65
(2) Types of Financial Assistance Available for Eligible Water Systems.....	65
(a) Loans.....	65
(b) Refinancing Existing Debt Obligations.....	67
(c) Credit Enhancement Agreements and Interest Buy-Down Agreements.....	67
(d) Technical Assistance.....	68
R309-705-5. Application and Project Initiation Procedures.....	69
R309-705-6. Applicant Priority System and Selection of Terms of Assistance.....	72
R309-705-7. Project Authorization.....	75
R309-705-8. Financial Evaluations.....	76
R309-705-9. Emergency Assistance.....	78
(1) Authority.....	78
(2) Eligibility.....	79
(3) Requirements for the Applicant.....	79
(4) Financial Agreements, Bonding, etc.....	80
(5) Funding Alternatives.....	80
(6) Funding Process.....	80
R309-705-10. Committal of Funds and Approval of Agreements.....	81
R309-705-11. Construction.....	81
R309-705-12. Compliance with Federal Requirements.....	81

This Page Intentionally Left Blank

R309-705. Financial Assistance: Federal Drinking Water Project Revolving Loan Program.

R309-705-1. Purpose.

The purpose of this rule is to establish criteria for financial assistance to public drinking water system in accordance with a federal grant established under 42 U.S.C. 300j et seq., federal Safe Drinking Water Act.

R309-705-2. Statutory Authority.

The authority for the Department of Environmental Quality acting through the Drinking Water Board to issue financial assistance for drinking water projects from a federal capitalization grant is provided in 42 U.S.C. 300j et seq., federal Safe Drinking Water Act, and Title 73, Chapter 10c, Utah Code.

R309-705-3. Definitions.

Definitions for general terms used in this rule are given in R309-110. Definitions for terms specific to this rule are given below.

"Board" means the Drinking Water Board.

"Drinking Water Project" means any work or facility necessary or desirable to provide water for human consumption and other domestic uses. Its scope includes collection, treatment, storage, and distribution facilities.

"Project Costs" include the cost of acquiring and constructing any project including, without limitation: the cost of acquisition and construction of any facility or any modification, improvement, or extension of such facility; any cost incident to the acquisition of any necessary property, easement or right of way, except property condemnation cost, which are not eligible costs; engineering or architectural fees, legal fees, fiscal agents' and financial advisors' fees; any cost incurred for any preliminary planning to determine the economic and engineering feasibility of a proposed project; costs of economic investigations and studies, surveys, preparation of designs, plans, working drawings, specifications and the inspection and supervision of the construction of any facility; Hardship Grant Assessments and interest accruing on loans made under this program during acquisition and construction of the project; and any other cost

incurred by the Board or the Department of Environmental Quality, in connection with the issuance of obligation to evidence any loan made to it under the law.

"Disadvantaged Communities" are defined as those communities located in an area which has a median adjusted gross income which is less than or equal to 80% of the State's median adjusted gross income, as determined by the Utah State Tax commission from federal individual income tax returns excluding zero exemption returns or where the established annual cost of drinking water service to the average residential user exceeds 1.75% of the median adjusted gross income.

"Drinking Water Project Obligation" means any bond, note or other obligation issued to finance all or part of the cost of acquiring, constructing, expanding, upgrading or improving a drinking water project, including, but not limited to, preliminary planning, studies, surveys, engineering or architectural fees, and preparation of plans and specifications.

"Credit Enhancement Agreement" means any agreement entered into between the Board, on behalf of the State, and an eligible water system for the purpose of providing methods and assistance to eligible water systems to improve the security for and marketability of drinking water project obligations.

"Eligible Water System" means any community drinking water system, either privately or publicly owned; and nonprofit noncommunity water systems.

"Interest Buy-Down Agreement" means any agreement entered into between the Board, on behalf of the State, and an eligible water system, for the purpose of reducing the cost of financing incurred by an eligible water system on bonds issued by the subdivision for project costs.

"Financial Assistance" means a project loan, credit enhancement agreement, or interest buy-down agreement, or technical assistance.

"Hardship Grant Assessment" means an assessment applied to loan recipients. The assessment shall be calculated as a percentage of principal. Hardship grant assessment funds shall be subject to the requirements of UAC R309-700 for hardship grants.

"Negative Interest" means a loan with an interest rate at less than zero percent. The repayment schedule for loans having a negative interest rate will be prepared by the Drinking Water Board.

"Principal Forgiveness" means a loan wherein a portion of the loan amount is "forgiven" upon closing the loan. The terms for principal forgiveness will be as directed by section 4 of this rule, and by the Drinking Water Board.

"Interest" means an assessment applied to loan recipients. The assessment shall be calculated as a percentage of principal

“Emergency” means an unexpected, serious occurrence of situation requiring urgent or immediate action. With regard to a water system this would be a situation resulting from the failure of equipment or other infrastructure, or contamination of the water supply, which threatens the health and / or safety of the public / water users.

“Technical Assistance” means financial assistance provided for a feasibility study or master plan, to identify and / or correct system deficiencies, to help a water system overcome other technical problems. The system receiving said technical assistance may or may not be required to repay the funds received. If repayment is required, the Board will establish the terms of repayment.

“SRF Technical assistance Fund” means a fund (or account) that will be established for the express purpose of providing “Technical Assistance” to eligible drinking water systems.

R309-705-4. Financial Assistance Methods.

(1) Eligible Activities of the SRF.

Funds within the SRF may be used for loans and other authorized forms of financial assistance. Funds may be used for the construction of publicly or privately owned works or facilities, or any work that is an eligible project cost as defined by 73-10c-2 of the Utah Code.

(2) Types of Financial Assistance Available for Eligible Water Systems.

(a) Loans.

To qualify for "negative interest" or "principal forgiveness", the system must qualify as a "disadvantaged community". Upon application, the Board will make a case by case determination whether the system is a "disadvantaged community". To be eligible to be considered as a disadvantaged community, the system must be located in a service area or zip code area which has a median adjusted gross income which is less than or equal to 80% of the State's median adjusted gross income, as determined by the Utah State Tax Commission from federal individual income tax returns excluding zero exemption returns. Additionally, the Board will consider the type of community served by the system, the economic condition of the community, the population characteristics of those served by the system, factors relating to costs, charges and operation of the water system, and other such information as the Board determines relevant to making the decision to recognize the system as a "disadvantaged community".

(i) Hardship Grant Assessment.

The assessment will be calculated based on the procedures and formulas shown in section 6 of this rule.

(ii) Repayment.

Annual repayments of principal, interest and/or Hardship Grant Assessment generally commence not later than one year after project completion. Project completion shall be defined as the date the funded project is capable of operation. Where a project has been phased or segmented, the repayment requirement applies to the completion of individual phases or segments.

The loan must be fully amortized not later than 20 years after project completion or not later than 30 years after project completion if the community served by the water system is determined to be a disadvantaged community. The yearly amount of the principal repayment is set at the discretion of the Board.

(iii) Principal Forgiveness.

Eligible water systems meeting the definition of "disadvantaged community" may qualify for financial assistance in the form of forgiveness of the principal loan amount. Terms for principal forgiveness will be as determined by Board resolution.

Eligible applicants for "principal forgiveness" financial assistance will be considered by the Board on a case-by-case basis. The Board will consider the type of community served by the system, the economic condition of the community, the population characteristics of those served by the system, factors relating to costs, charges and operation of the water system, and such other information as the Board determines relevant to making the decision to recognize the system as a disadvantaged community.

(iv) Negative Interest Rate.

Eligible water systems meeting the definition of "disadvantaged community" may qualify for financial assistance in the form of a loan with a negative interest rate, as determined by Board resolution.

Eligible applicants for "negative interest" financial assistance will be considered by the Board on a case-by-case basis. The Board will consider the type of community served by the system, the economic condition of

the community, the population characteristics of those served by the system, factors relating to costs, charges and operation of the water system, and such other information as the Board determines relevant to making the decision to recognize the system as a disadvantaged community.

(v) Dedicated Repayment Source and Security.

Loan recipients must establish one or more dedicated sources of revenue for repayment of the loan. As a condition of financial assistance, the applicant must demonstrate a revenue source and security, as required by the Board.

(b) Refinancing Existing Debt Obligations.

The Board may use funds from the SRF to buy or refinance municipal, inter-municipal or interstate agencies, where the initial debt was incurred and construction started after July 1, 1993. Refinanced projects must comply with the requirements imposed by the Safe Drinking Water Act(SDWA) as though they were projects receiving initial financing from the SRF.

(c) Credit Enhancement Agreements and Interest Buy-Down Agreements.

The Board will determine whether a project may receive all or part of a loan, credit enhancement agreement or interest buy-down agreement. To provide security for project obligations, the Board may agree to purchase project obligations of applicants, or make loans to the applicants. The Board may also consider making loans to the applicants to pay the cost of obtaining letters of credit from various financial institutions, municipal bond insurance, or other forms of insurance or security for project obligations. The Board may also consider other methods of assistance to applicants to properly enhance the marketability of or security for project obligations.

Interest buy-down agreements may consist of any of the following:

(i) A financing agreement between the Board and applicant whereby a specified sum is loaned to the applicant. The loaned funds shall be placed in a trust account, which shall be used exclusively to reduce the cost of financing for the project.

(ii) A financing agreement between the Board and the applicant whereby the proceeds of bonds purchased by the Board is combined with proceeds from publicly issued bonds to finance the project. The rate of interest on bonds purchased by the Board may carry an interest rate lower than the interest rate on the publicly issued bonds, which when blended together will provide a reduced annual debt service for the project.

(iii) Any other legal method of financing which reduces the annual payment amount on publicly issued bonds. The financing alternative chosen should be the one most economically advantageous for the State and the applicant.

(d) Technical Assistance.

The Board will establish a fund (or account) into which the proceeds of an annual fee on loans will be placed. These funds will be used to finance technical assistance for eligible water systems.

This fund will provide low interest loans for technical assistance and any other eligible purpose as defined by Section 1452 of the Safe Drinking Water Act (SDWA) Amendments of 1996 to water systems that are eligible for Federal SRF loans. Repayment of these loans may be waived in whole or in part (grant funds) by the Board whether or not the borrower is disadvantaged.

- (i) The Board will establish a fee to be assessed against loans authorized under the Federal SRF Loan Program. The revenue generated by this fee will be placed in a new fund called the “SRF Technical Assistance Fund”.
- (ii) The amount will be assessed as a percentage of the Principal Balance of the loan on an annual basis, the same as the annual interest and hardship grant assessment are assessed. The borrower will pay the fee annually when paying the principal and interest or hardship grant assessments.
- (iii) The Board will set / change the amount of the fee from time to time as they determine meets the needs of the program.
- (iv) This fee will be part of the “effective rate” calculated for the loan using Table 2, R309-705-6. This fee will not be charged in addition to said effective rate. After the effective rate has been calculated for the loan using Table 2, the technical assistance fee will be subtracted from it. The difference will be assessed as the hardship grant assessment or interest rate.
- (v) The proceeds of the fund will be used as defined above or as modified by the Board in compliance with Section 1452 of the SDWA Amendments of 1996.

(3) Ineligible Projects.

Projects which are ineligible for financial assistance include:

(a) Any project for a water system in significant non-compliance, as measured by a "not approved" rating, unless the project will resolve all outstanding issues causing the non-compliance.

(b) Any project where the Board determines that the applicant lacks the technical, managerial, or financial capability to achieve or maintain SDWA compliance, unless the Board determines that the financial assistance will allow or cause the system to maintain long-term capability to stay in compliance.

(c) Any project meant to finance the expansion of a drinking water system to supply or attract future population growth. Eligible projects, however, can be designed and funded at a level which will serve the population that a system expects to serve over the useful life of the facility.

(d) Projects which are specifically prohibited from eligibility by Federal guidelines. These include the following:

(i) Dams, or rehabilitation of dams;

(ii) Water rights, unless the water rights are owned by a system that is being purchased through consolidation as part of a capacity development strategy;

(iii) Reservoirs, except for finished water reservoirs and those reservoirs that are part of the treatment process and are located on the property where the treatment facility is located;

(iv) Laboratory fees for monitoring;

(v) Operation and maintenance costs;

(vi) Projects needed mainly for fire protection.

R309-705-5. Application and Project Initiation Procedures.

The following procedures must normally be followed to obtain financial assistance from the Board:

(1) It is the responsibility of the applicant to obtain the necessary financial, legal and engineering counsel, as deemed acceptable by the Drinking Water Board, to prepare an effective and appropriate financial assistance agreement.

- (2) A completed application form and project engineering report, as appropriate, are submitted to the Board.
- (3) The staff prepares an engineering, capacity development analysis, and financial feasibility report on the project for presentation to the Board.
- (4) The Board "Authorizes" financial assistance for the project on the basis of the feasibility report prepared by the staff. The Board then designates whether a loan, credit enhancement agreement, interest buy-down agreement, or any combination thereof, is to be entered into, and approves the project schedule (see section 7 of this rule).
- (5) The applicant must demonstrate public support for the project prior to bonding, as deemed acceptable by the Drinking Water Board.
- (6) For financial assistance mechanisms where the applicant's bond is purchased by the Board, the project applicant's bond documentation must include an opinion from recognized bond counsel. Counsel must be experienced in bond matters, and must include an opinion that the drinking water project obligation is a valid and binding obligation of the applicant (see section 8 of this rule). The opinion must be submitted to the Assistant Attorney General for preliminary approval and the applicant shall publish a Notice of Intent to issue bonds in a newspaper of general circulation pursuant to 11-14-21 of the Utah Code. For financial assistance mechanisms when the applicant's bond is not purchased by the Board, the applicant shall submit a true and correct copy of an opinion from legal counsel, experienced in bond matters, that the drinking water project obligation is a valid and binding obligation of the applicant.
- (7) The Board issues a Plan Approval for plans and specifications, if required, and concurs in bid advertisement.
- (8) If a project is designated to be financed by a loan or an interest buy-down agreement, an account supervised by the applicant and the Board will be established by the applicant to assure that loan funds are used only for eligible project costs. If financial assistance for the project is provided by the Board in the form of a credit enhancement or interest buy-down agreement, all project funds will be maintained in a separate account, and a quarterly report of project expenditures will be provided to the Board.

Incremental disbursement bonds will be required. Cash draws will be based on a schedule that coincides with the rate at which project related costs are expected to be incurred for the project.

- (9) For a revenue bond, a User Charge Ordinance, or water rate structure, must be submitted to the Board for review and approval to insure adequate provisions for debt retirement and/or operation and maintenance. For a general obligation bond, a User Charge Ordinance must be submitted to the Board for review and approval to insure the system will have adequate resources to provide acceptable service.

(10) A "Private Company" will be required to enter into a Loan Agreement with the Board. The loan agreement will establish the procedures for disbursement of loan proceeds and will set forth the security interests to be granted to the Board by the Applicant to secure the Applicant's repayment obligations.

(a) The Board may require any of the following forms of security interest or additional/other security interests to guarantee repayment of the loan: deed of trust interests in real property, security interests in equipment and water rights, and personal guarantees.

(b) The security requirements will be established after the Board's staff has reviewed and analyzed the Applicants financial condition.

(c) These requirements may vary from project to project at the discretion of the Board

(d) The Applicant will also be required to execute a Promissory Note in the face amount of the loan, payable to the order of the lender, and file a Utah Division of Corporations and Commercial Code Financing Statement, Form UCC-1.

(e) The Board may specify that loan proceeds be disbursed incrementally into an escrow account for expected construction costs. Or it may authorize another acceptable disbursement procedure.

(11) The applicant's contract with its engineer must be submitted to the Board for review to, determine that there will be adequate engineering involvement, including project supervision and inspection, to successfully complete the project.

(12) The applicant's attorney must provide an opinion to the Board regarding legal incorporation of the applicant, valid legal title to rights-of-way and the project site, validity and quantity of water rights, and adequacy of bidding and contract documents, as required.

(13) A position fidelity bond must be provided for the treasurer or other local staff handling the repayment funds and revenues produced by the applicant's system.

(14) CREDIT ENHANCEMENT AGREEMENT AND INTEREST BUY-DOWN AGREEMENT ONLY - The Board shall issue the credit enhancement agreement or interest buy-down agreement setting forth the terms and conditions of the security or other forms of assistance provided by the agreement and shall notify the applicant to sell the bonds.

(15) CREDIT ENHANCEMENT AGREEMENT AND INTEREST BUY-DOWN AGREEMENT ONLY - The applicant shall sell the bonds on the open market and shall notify the Board of the terms of sale. If a credit enhancement agreement is being utilized, the bonds sold on the open market shall contain the legend required by 73-10c-6(3)(d) of

the Utah Code. If an interest buy-down agreement is being utilized, the bonds sold on the open market shall bear a legend which makes reference to the interest buy-down agreement and states that such agreement does not constitute a pledge of or charge against the general revenues, credit or taxing powers of the state and that the holder of any such bond may look only to the applicant and the funds and revenues pledged by the applicant for the payment of interest and principal on the bonds.

(16) The applicant shall open bids for the project.

(17) LOAN ONLY - The Board shall give final approval to purchase the bonds and execute the loan contract.

(18) LOAN ONLY - The final closing of the loan is conducted.

(19) A preconstruction conference shall be held.

(20) The applicant shall issue a written notice to proceed to the contractor.

R309-705-6. Applicant Priority System and Selection of Terms of Assistance.

(1) Priority Determination.

The Board may, at its option, modify a project's priority rating based on the following considerations:

- (a) The project plans, specifications, contract, financing, etc., of a lesser-rated project are ready for execution.
- (b) Available funding.
- (c) Acute health risk.
- (d) Capacity Development.
- (e) An Emergency

The Board will utilize the format shown in Table 1 to prioritize loan applicants.

	Table 1	
	PRIORITY SYSTEM	
	Deficiency Description	Points Received

	SOURCE QUALITY/ QUANTITY	
HEALTH RISK	(SELECT ONE)	
A.	There is evidence that waterborne illnesses have occurred	25
B.	There are reports of illnesses which may be waterborne	20
C.	High potential for waterborne illness exists.....	15
D.	Moderate potential for waterborne illness	8
E.	No evidence of potential health risks	0
COMPLIANCE WITH SDWA (SELECT ALL THAT APPLY)		
A.	Source has been determined to be under the influence of surface water	25
B.	System is often out of water due to inadequate source capacity	20
	-or-	
	System capacity does not meet the requirements of UPDWR.....	10
C.	Source has a history of three or more confirmed microbiological violations within the last year.....	10
D.	Sources are not developed or protected according to UPDWR.....	10
E.	Source has confirmed MCL chemistry violations within the last year	10
		100
	TREATMENT	
HEALTH RISK/ COMPLIANCE WITH SDWA (SELECT ALL THAT APPLY)		
A.	Treatment system cannot consistently meet log removal requirements and / or turbidity standards.....	25
B.	The required disinfection systems are not installed, are inadequate, or fail to provide adequate water quality	25
C.	Treatment system is subject to impending failure, or has failed.....	25
	-or-	
	Treatment system equipment does not meet demands of UPDWR.....	15
	-or-	
	System equipment is projected to become inadequate without upgrades.....	5
		75
	STORAGE	
HEALTH RISK / COMPLIANCE WITH SDWA (SELECT		

ALL THAT APPLY)		
A.	Storage system is subject to impending failure, or has failed.....	25
	-or-	
	System is old, cannot be easily cleaned, or is subject to contamination.....	15
B.	Storage system is inadequate for existing demands	20
	-or-	
	Storage system demand exceeds 90% of storage capacity	10
C.	Applicable contact time requirements cannot be met without an upgrade.....	15
D.	System suffers from low static pressures	<u>15</u>
		75
DISTRIBUTION		
HEALTH RISK / COMPLIANCE WITH SDWA (SELECT ALL THAT APPLY)		
A.	Distribution system equipment is deteriorated or inadequate for existing demands.....	20
	-or-	
	Distribution system is inadequate to meet 5-year projected demands	10
B.	Applicable disinfectant residual maintenance requirements are not met or high backflow contamination potential exists.....	20
C.	Project will replace pipe containing unsafe materials (lead, asbestos, etc.)	15
D.	Minimum dynamic pressure requirements are not met	10
E.	System experiences a heavy leak rate in the distribution lines	<u>10</u>
	TOTAL	75

Priority Rating = (Average Points Received) x (Rate Factor) x (AGI Factor)
Where:* Rate Factor = (Average System Water Bill/ Average State Water Bill)
** AGI Factor = (State Median AGI / System Median AGI)

(2) Financial Assistance Determination. The amount and type of financial assistance offered will be based upon the criteria shown in Table 2. As determined by Board resolution, disadvantaged communities may also receive zero-percent loans, or other financial assistance as described herein.

Effective rate calculation methods will be determined by Board resolution from time to time, using the Revenue Bond Buyer Index (RBBI) as a basis point, the points assigned in

Table 2, and a method to reduce the interest rate from a recent RBBI rate down to a potential minimum of zero percent.

<p style="text-align: center;">Table 2 SPECIAL HEARDSHIP GRANT ASSESSMENT RATE REDUCTION INCENTIVES</p>	
1. Project will include creation or enhancement of, or compliance with a regionalization plan if regionalization is possible in the judgement of the Board. If not, the points will not be assigned and the total possible points will be 75.....	25
2. Applicant has, within the last 5 years, developed and implemented a water master plan	25
3. Applicant has a 5 year history of having implemented a replacement or depreciation fund, amounting to 5% of the drinking water budget for O&M and debt service	15
4. Applicant has a written emergency response plan.....	10
5. Project funding contributed by applicant meets or exceeds 20% of estimated project cost.....	10
6. Applicant has established a rate structure to encourage water conservation.....	<u>15</u>
TOTAL POSSIBLE POINTS	100

R309-705-7. Project Authorization.

A project may be "Authorized" for a loan, credit enhancement agreement, interest buy-down agreement, or technical assistance in writing by the Board following submission and favorable review of an application form, engineering report (if required), financial capability assessment and Staff feasibility report.

Once the application submittals are reviewed, the staff will prepare a project feasibility report for the Board's consideration in Authorizing a project. The project feasibility report will include an evaluation of the project with regard to the Board's funding priority criteria, and will contain recommendations for the type of financial assistance which may be extended (i.e., for a loan, credit enhancement agreement, or interest buy-down agreement).

The Board may authorize a loan for any work or facility to provide water for human consumption and other domestic uses. Generally, work means planning, engineering design, or other eligible activities defined elsewhere in these rules.

Project Authorization is conditioned upon the availability of funds at the time of loan closing or signing of the credit enhancement, or interest buy-down and upon adherence to the project schedule approved at that time. The Board, at its own discretion, may require the Applicant to enter into a "Commitment Agreement" with the Board prior to execution of final loan documents or closing of the loan. This Commitment Agreement or Binding Commitment may specify date(s) by which the Applicant must complete the requirements set forth in the Project Authorization Letter. The Commitment Agreement shall state that if the Department of Environmental Quality acting through the Drinking Water Board is unable to make the Loan by the Loan Date, this Agreement shall terminate without any liability accruing to the Department or the Applicant hereunder. Also, if the project does not proceed according to the project schedule, the Board may withdraw project Authorization, so that projects which are ready to proceed can obtain necessary funding. Extensions to the project schedule may be considered by the Board, but any extension requested must be fully justified.

R309-705-8. Financial Evaluations.

- (1) The Board considers it a proper function to assist project applicants in obtaining funding from such financing sources as may be available.
- (2) In providing financial assistance in the form of a loan, the Board may purchase bonds of the applicant only if the bonds are accompanied by a legal opinion of recognized municipal bond counsel. Bond counsel must provide an opinion that the bonds are legal and binding under applicable Utah law (including, if applicable, the Utah Municipal Bond Act). For bonds of \$150,000 or less the Board will not require this opinion.
- (3) In providing financial assistance in the form of a loan, the Board may purchase either taxable or non-taxable bonds; provided that it shall be the general preference of the Board to purchase bonds issued by the applicant only if the bonds are tax exempt. Tax-exempt bonds must be accompanied by a legal opinion of recognized municipal bond counsel to the effect that the Interest and the Hardship Grant Assessment (also interest) on the bonds is exempt from federal income taxation. Such an opinion must be obtained by the applicant in the following situations:

(a) Bonds which are issued to finance a project which will also be financed in part at any time by the proceeds of other bonds which are exempt from federal income taxation.

(b) Bonds which are not subject to the arbitrage rebate provisions of Section 148 of the Internal Revenue Code of 1986 (or successor provision of similar intent), including, without limitation, bonds covered by the "small governmental units" exemption contained in Section 148(f)(4)(c) of the Internal Revenue Code of 1986 (or any successor provision of similar intent) and bonds which are not subject to arbitrage rebate because the gross proceeds from the loan will be completely expended within six months after the issuance of such bonds

(4) If more than 25 percent of the project is to serve industry, bond counsel must evaluate the loan to ensure the tax exempt status of the loan fund.

(5) Revenue bonds purchased by the Board shall be secured by a pledge of water system revenues, and it is the general policy of the Board that the pledge of water revenues for the payment of debt service (principal and/or Hardship Grant Assessment) on a particular revenue bond be on a parity with the pledge of those water revenues as security for the debt service payments on all other bonds or other forms of indebtedness which are secured by the water revenues.

(6) If a project is Authorized to receive a loan, the Board will establish the portion of the construction cost to be included in the loan and will set the terms for the loan. It is the Board's intent to avoid repayment schedules which would exceed the design life of the project facilities.

(7) Normal engineering and investigation costs incurred by the Department of Environmental Quality (DEQ) or Board during preliminary project investigation and prior to Board Authorization will not become a charge to the applicant if the project is found infeasible, denied by the Board, or if the applicant withdraws the Application prior to the Board's Authorization.

If the credit enhancement agreement or interest buy-down agreement does not involve a loan of funds from the Board, then administrative costs will not be charged to the project. However, if the Board authorizes a loan for the project, all costs incurred by the DEQ or Board on the project will be charged against the project and paid by the applicant as a part of the total project cost. Generally, this will include all DEQ and Board costs incurred from the beginning of the preliminary investigations through the end of construction and close-out of the project. If the applicant decides not to build the project after the Board has Authorized the project, all costs accrued after the Authorization date will be reimbursed by the applicant to the Board.

(8) The Board shall determine the date on which the scheduled payments of principal, Hardship Grant Assessment, and interest will be made. In fixing this date, all possible

contingencies shall be considered, and the Board may allow the system user up to one year of actual use of the project facilities before the first repayment is required.

(9) The applicant shall furnish the Board with acceptable evidence that the applicant is capable of paying its share of the construction costs during the construction period.

(10) LOANS AND INTEREST BUY-DOWN AGREEMENTS ONLY - The Board may require, as part of the loan or interest buy-down agreement, that any local funds which are to be used in financing the project be committed to construction prior to or concurrent with the committal of State funds.

(11) The Board will not forgive the applicant of any payment after the payment is due.

(12) The Board will require that a debt service reserve account be established by the applicant at or before the time that the loan is closed. Deposits to that account shall be made at least annually in the amount of one-tenth of the annual payment on the bond(s) purchased by the Board and shall continue until the total amount in the debt service reserve fund is equal to the annual payment. The debt service reserve account shall be continued until the bond is retired. Failure to maintain the reserve account will constitute a technical default on the bond(s).

(13) The Board will require a capital facilities replacement reserve account be established at or before the loan is closed. Deposits to that account shall be made at least annually in the amount of five percent (5%) of the applicant's annual drinking water system budget, including depreciation, unless otherwise specified by the Board at the time of loan authorization, until the loan is repaid. This fund shall not serve as security for the payment of principal or Hardship Grant Assessment on the loan. The applicant shall adopt such resolutions as necessary to limit the use of the fund to construct capital facilities for its water system. The applicant will not need the consent of the Board prior to making any expenditure from the fund. Failure to maintain the reserve account will constitute a technical default on the bond(s) and may result in penalties being assessed.

(14) If the Board is to purchase a revenue bond, the Board will require that the applicant's water rates be established such that sufficient net revenue will be raised to provide at least 125% (or such other amount as the Board may determine) of the total annual debt service.

(15) A Water Management and Conservation Plan will be required.

R309-705-9. Emergency Assistance.

(1) Authority

Title 73, Chapter 10c of State Statute and the SDWA Amendment of 1996 give the Board authority to provide emergency assistance to drinking water systems.

(2) Eligibility

Generally, any situation occurring as defined in Section R309-705-3 would qualify for consideration for emergency funding. However, prior to authorizing funds for an emergency the Board may consider one or more of the various factors listed below.

- (i) Was the emergency preventable? Did the utility / water system have knowledge that this emergency could be expected? If not. Should it have been aware of the potential for this problem? Did its management take reasonable action to either prevent it or to be as prepared as reasonably possible to correct the problem when it occurred (prepared financially and technically for the event causing the problem)?
- (ii) Has the utility / system established a capital improvement replacement reserve fund? Has the utility / system been charging reasonably high rates in order to establish a reserve fund to cover normal infrastructure replacement and emergencies?
- (iii) Is the community a disadvantaged (hardship) community?
- (iv) Is the potential for illness, injury, or other harm to the public or system operators sufficiently high that the value of providing financial assistance outweighs other factors that would preclude providing this assistance. (Even though the State does not have any legal obligation to provide financial assistance to help correct the problem.).

(3) Requirements for the Applicant

The applicant will be required to do the following as a condition of receiving financial assistance:

- (i) To the extent feasible, the utility / system shall first use its own resources, e.g. capital improvement replacement fund, to correct the problem.
- (ii) If the utility / system is not placing funds into a reserve fund on a regular basis and / or is charging relatively low water rates it shall be required to examine its current rate structure and policies for placing funds into a reserve account. The Board may require the utility / system to establish a reserve account and / or to revise its rate structure (increasing its rate) as a condition of the loan.

- (iii) The Board may place other requirements on the utility / system.

(4) Financial Agreements, Bonding, etc

The State will work with the Applicant to help secure obligating documents. For example, the Board:

- (i) Could waive the 30-day notice period, if legally possible.
- (ii) Could accept a generic bond.
- (iii) Could accept an unsecured loan or bond.

(5) Funding Alternatives

An Applicant may be authorized to receive a loan by any of the financial assistance methods specified in R309-705-4 for funding an emergency project. The Board may set and revise the methodology and factors to be considered when determining the terms of financial assistance it provides. The terms of the loan, including length of repayment period, interest or hardship grant assessment, and principal forgiveness (grant) or repayment waivers will be determined at the time the emergency funding is authorized.

(6) Funding Process

Emergencies: It is anticipated that under normal emergency conditions time restraints will not allow a request for emergency funding to be placed on the agenda of a regularly scheduled Board Meeting. Therefore, the following procedures will be followed in processing a loan application for emergency assistance:

- (i) The Board will provide guidance to Division staff of the amounts of money, terms of financial assistance, and other factors it wants applied to financial assistance for emergencies.
- (ii) Division staff will evaluate each application for emergency funding and determine if it is an emergency according to this rule and other relevant guidance. Staff will make recommendations to the Board to provide financial assistance. Staff will notify the local health department (LHD) and District Engineer, and will solicit recommendations from the LHD and District Engineer about the proposed project to mitigate the emergency. Staff will inform the Chairperson of the SRF / Conservation Committee of the apparent emergency.

(iii) The Committee Chairperson will arrange for a timely meeting of the SRF / Conservation Committee to consider authorizing assistance for the emergency. This meeting may be conducted by telephone.

(iv) If the SRF / Conservation Committee concludes that it will recommend emergency funding to the Board, the Committee Chairperson will request the Board Chairperson or Executive Secretary to the Board arrange for a Board meeting to consider the application.

R309-705-10. Committal of Funds and Approval of Agreements.

After the Board has approved the plans and specifications by the issuance of a Plan Approval, the loan will be considered by the Board for final approval. The Board will determine whether the agreement is in proper order. The Executive Secretary, or designee, may then execute final approval of the loan or credit enhancement agreement if obligations to the Board or other aspects of the project have not changed significantly since the Board's authorization of the loan or credit enhancement, provided all conditions imposed by the Board have been met. If significant changes have occurred the Board will then review the project and, if satisfied, the Board will then commit funds, approve the signing of the contract, credit enhancement agreement, or interest buy-down agreement, and instruct the Executive Secretary to submit a copy of the signed contract or agreement to the Division of Finance.

R309-705-11. Construction.

The Division of Drinking Water staff may conduct inspections and will report to the applicant. Contract change orders must be properly negotiated with the contractor and approved in writing. Change orders in excess of \$10,000 must receive prior written approval by the Executive Secretary before execution. Upon successful completion of the project and recommendation of the applicant's engineer, the applicant will request the Executive Secretary to conduct a final inspection. When the project is complete to the satisfaction of the applicant's engineer, the Executive Secretary and the applicant, written approval will be issued by the Executive Secretary to commence using the project facilities.

R309-705-12. Compliance with Federal Requirements.

- (1) Applicants must show the legal, institutional, managerial, and financial capability to construct, operate, and maintain the drinking water system(s) that the project will serve.
- (2) As required by Federal Code, applicants may be subject to the following federal requirements:

Archeological and Historic Preservation Act of 1974, Pub. L. 86-523, as amended

Clean Air Act, Pub. L. 84-159, as amended

Coastal Barrier Resources Act, Pub. L. 97-348

Coastal Zone Management Act, Pub. L. 92-583, as amended

Endangered Species Act, Pub. L. 92-583

Environmental Justice, Executive Order 12898

Floodplain Management, Executive Order 11988 as amended by Executive Order 12148

Protection of Wetlands, Executive Order 11990

Farmland Protection Policy Act, Pub. L. 97-98

Fish and Wildlife Coordination Act, Pub. L. 85-624

National Environmental Policy Act of 1969 (NEPA), Pub. L. 91-190

National Historic Preservation Act of 1966, PL 89-665, as amended

Safe Drinking Water Act, Pub. L. 93-523, as amended

Wild and Scenic Rivers Act, Pub. L. 90-542, as amended

Age Discrimination Act of 1975, Pub. L. 94-135

Title VI of the Civil Rights Act of 1964, Pub. L. 88-352

Section 13 of the Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92-500 (the Clean Water Act)

Section 504 of the Rehabilitation Act of 1973, Pub. L. 93-112 (including Executive Orders 11914 and 11250)

The Drug-Free Workplace Act of 1988, Pub. L. 100-690 (applies only to the capitalization grant recipient)

Equal Employment Opportunity, Executive Order 11246

Women's and Minority Business Enterprise, Executive Orders 11625, 12138 and 12432

Section 129 of the Small Business Administration Reauthorization and Amendment Act of 1988, Pub. L. 100-590

Anti-Lobbying Provisions (40 CFR Part 30)

Demonstration Cities and Metropolitan Development Act of 1966, Pub. L. 89-754, as amended

Procurement Prohibitions under Section 306 of the Clean Water Act and Section 508 of the Clean Water Act, including Executive Order 11738, Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans

Uniform Relocation and Real Property Acquisition Policies Act, Pub. L. 91-646, as amended

Debarment and Suspension, Executive Order 12549

Accounting procedures, whereby applicants agree to maintain a separate project account in accordance with Generally Accepted Accounting Standards and Utah State Uniform Accounting requirements

KEY

SDWA, financial assistance, loans

Date of Enactment or Last Substantive Amendment

November 15, 2002

Notice of Continuation

September 16, 2002

Authorizing Implemented or Interpreted Law

19-4-104; 73-10c

DDW Version

Revised 2/12/03

This Page Intentionally Left Blank

R309-352. Capacity Development Program (Effective September 15, 1999)

Note: The Division of Drinking Water is currently revising rules. Because of this, some of the references to rule numbers outside of this document may be invalid. This rule will eventually be rewritten as R309-800.

Table of Contents

R309-352-1. Authority.	87
R309-352-2. Purpose.	87
R309-352-3. Definitions.	87
R309-352-4. General.....	88
R309-352-5. Requirements for New Community and New Non-transient, Non-community Water Systems.	90
R309-352-6. Minimum Capacity Required for Financial Assistance Under Provisions of R309- 351.	91

Rule R309-352. Capacity Development Program.

R309-352-1. Authority.

(1) Under authority granted in Subsection 19-4-104(1)(a)(v), the Drinking Water Board adopts this rule implementing the capacity development program and governing the allotment of federal funds to public water systems to assist them to comply with the Federal 1996 Reauthorized Safe Drinking Water Act (SDWA).

R309-352-2. Purpose.

(1) The SDWA makes certain federal funds available to states, section 1452(k)(2)(C) to provide assistance to any public water system as part of a capacity development strategy developed and implemented in accordance with section 1420(c) to ensure all new public water systems will be able to comply with the SDWA, to enhance existing public water systems' capability to comply with the SDWA, and determine which public water systems applying for financial assistance are eligible to use the State Revolving Funds.

(2) The purpose of the Capacity Development Program is to enhance and ensure the technical, financial, and managerial capacity of water systems. The long range goals are to promote compliance with drinking water regulations for the long term and the public health protection objectives of the Safe Drinking Water Act.

R309-352-3. Definitions.

(1) Definitions for terms used in this rule are given in R309-200, except as modified below.

(2) "Capacity Development" means technical, managerial, and financial capabilities of the water system to plan for, achieve, and maintain compliance with applicable drinking water standards.

(3) "Drinking Water Region Planning" means a county wide water plan, administered locally by a coordinator, who facilitates the input of representatives of each public water system in the county with a selected consultant, to determine how each public water system will either collectively or individually comply with source protection, operator certification, monitoring including consumer confidence reports, capacity development including technical, financial and managerial aspects, environmental issues, available funding and related studies.

(4) "Small Water System" means a water system with less than 3,300 people being served.

(5) "Public Water System" means a system providing water for human consumption and other domestic uses through pipes or other constructed conveyances, which has at least 15 service connections or serves an average of at least 25 individuals daily at least 60 days out of the year.

(6) "Non-Community Water System" (NCWS) means a public water system that is not a community water system. There are two types of NCWS's: transient and non-transient.

(7) Non-Transient Non-Community Water System (NTNCWS) means a public water system that regularly serves at least 25 of the same nonresident persons per day for more than six months per year. Examples of such systems are those serving the same individuals (industrial workers, school children, church members) by means of a separate system.

(8) "New Water System" means a system that will become a community water system or non-transient, non-community water system on or after October 1, 1999.

(9) "Required reserve" means funds set aside to meet requirements set forth in a loan covenant/bond indenture.

R309-352-4. General.

(1) Capacity development criteria are to be used as a guideline for all water systems. These criteria constitute a standard applied when reviewing new systems applications, reviewing applications for financial assistance and assessing capacity of water systems rated unapproved or in significant non-compliance by the State or the EPA.

(2) Water systems shall meet the following criteria:

(a) Technical Capacity Criteria:

(i) Finished water shall meet all drinking water standards as required by Utah State Rules;

(ii) Personnel shall operate the system in accordance with the operations and maintenance manual;

(iii) A valid water right shall be obtained;

(iv) Water system shall meet source, storage, and distribution requirements as per Utah State Rules;

(v) Water system shall not be rated unapproved or in significant noncompliance by the State or the EPA.

(b) Managerial Capacity Criteria:

(i) The system owner(s) shall be clearly identified to the Executive Secretary;

(ii) The system shall meet all of the operator certification requirements as per R309-301 and backflow technician certification requirements as per R309-302.

(iii) A system or method shall be in-place to effectively maintain all requisite records, distribution system histories/maps, and compliance information; and

(iv) An operating plan shall include names and certification level of the system operator(s), facility operation and maintenance manuals, routine maintenance procedures, water quality violations response procedures, water quality monitoring plan, training plan, and emergency response plan;

(v) The Executive Secretary of the Drinking Water Board shall be informed of management changes.

(c) Financial Capacity Criteria:

(i) Revenues shall be greater than expenses;

(ii) A financial statement compilation by a Certified Public Accountant, or an audit if otherwise required of the water system, shall be completed every three years;

(iii) The water system shall devise and implement a managerial budget and accounting process in accordance with generally accepted principals;

(iv) The operating ratio (operating revenue divided by operating expenses excluding depreciation and required reserves) shall be greater than 1.0;

(v) The coverage ratio (total revenues minus operating expenses excluding depreciation and required reserves divided by annual debt service) shall be greater than 1.0;

(vi) Customers shall be metered; and

(vii) An emergency/replacement reserve shall be created and funded

R309-352-5. Requirements for New Community and New Non-transient, Non-community Water Systems.

(1) Feasibility Review, (See R309-101-3).

(2) Each proposed, new water system must demonstrate that it has adequate technical, managerial, and financial capacity before it may provide water for human consumption. Proposed water systems shall submit the following for Capacity Assessment Review:

(3) Project Notification form (see R309-201-6),

(4) A business plan, which includes a facilities plan, management plan, and financial plan.

(a) Facilities plan. The facilities plan shall describe the scope of the water services to be provided and shall include the following:

(i) A description of the nature and extent of the area to be served, and provisions for extending the water supply system to include additional area. The description shall include population and land use projections and forecasts of water usage;

(ii) An assessment of current and expected drinking water compliance based on monitoring data from the proposed water source;

(iii) A description of the alternatives considered, including interconnections with other existing water systems, and the reasons for selecting the method of providing water service. This description shall include the technical, managerial, financial and operational reasons for the selected method, and

(iv) An engineering description of the facilities to be constructed, including the construction phases and future phases and future plans for expansion. This description shall include an estimate of the full cost of any required construction, operation, and maintenance;

(b) Management plan. The management plan shall describe what is needed to provide for effective management and operation of the system and shall include the following:

(i) Documentation that the applicant has the legal right and authority to take the measures necessary for the construction, operation, and maintenance of the system. The documentation shall include evidence of

ownership if the applicant is the owner of the system or, if the applicant is not the owner, legally enforceable management contracts or agreements;

(ii) An operating plan that describes the tasks to be performed in managing and operating the system. The operating plan shall consist of administrative and management organization charts, plans for staffing the system with certified operators, and provisions for an operations and maintenance manual; and

(iii) Documentation of credentials of management and operations personnel, cooperative agreements or service contracts including demonstration of compliance with R309-301 water system operator certification rule; and

(c) Financial plan. The financial plan shall describe the system's expected revenues, cash flow, income and issuance and repayment of debt for meeting the costs of construction, and the costs of operation and maintenance for at least five years from the date the applicant expects to begin system operation.

(5) After the information submitted by the applicant is complete, the Division of Drinking Water shall conduct a Capacity Assessment Review. The applicant shall be notified in writing whether or not the new system has demonstrated adequate capacity. No new community or non-transient, non-community system will be approved if it lacks adequate capacity.

(6) Those systems constructed without approval shall be subject to: points as per R309-150, administrative and/or civil penalties and fines.

R309-352-6. Minimum Capacity Required for Financial Assistance Under Provisions of R309- 351.

(1) To obtain financial assistance, the applicant shall follow a two-step application process. First, the applicant shall complete a short application to establish a position on the priority list. A second application shall include Capacity Assessment Worksheets, project information, and financial information to verify priority ranking, determine eligibility, and provide a basis for grant/loan parameters.

(2) Financial assistance under the provisions of R309-351 shall not be available to a system that lacks the technical, managerial, or financial capability to maintain SDWA compliance, or is in significant noncompliance with any R309-101 through 104 or 200 through 211, unless the use of the financial assistance will ensure compliance or if the owner of the system agrees to undertake feasible and appropriate changes in operation to ensure technical, managerial, and financial capacity to comply with the SDWA over the long term.

Key: drinking water, funding, regionalization, capacity development

September 15, 1999